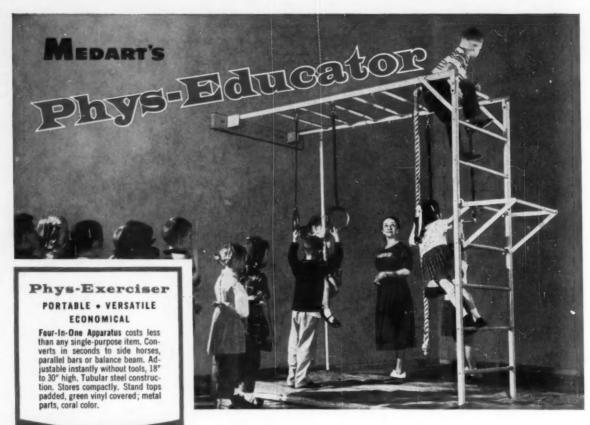
AMERICAN SCHOOL BOARD a periodical of school administration JOURNAL

language laboratories (see page 25)



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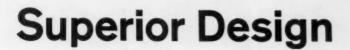
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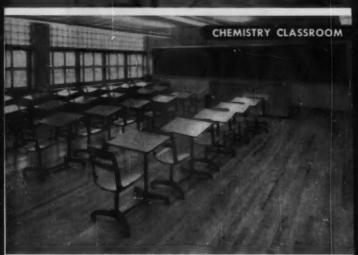
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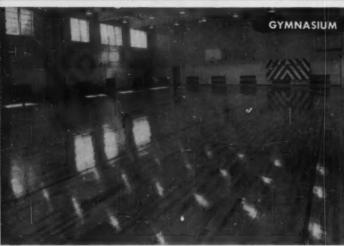
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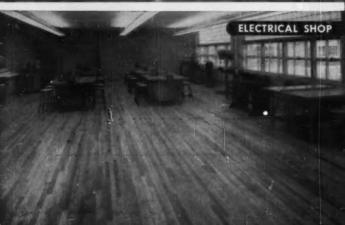
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OUR COVER ...

The cover articles (pp. 25 and 27) comprise a survey on the current trend in the usage of language laboratories.

Your JOURNAL for November ...

The advantages of utilizing the special talents and interests of teachers in elementary schools are being recognized in more and more communities. Especially in such group activities as art, music, etc., several classes will meet with the "master" teacher and the "regular" teacher or teachers.

Under a title like "team teaching," many variations on this theme are being sponsored by universities and foundations as

In your Journal for November, we've featured a brief report on one such plan (pg. 13) incorporated into the elementary grades of a smaller school as a model of what could

be done in your own schools.

Without benefit of "extra" funds or external support, the Norton, Mass., schools set up an experiment on two sixth grade classes. They adopted the term "co-ordinate teaching" instead of team teaching because their program called for choosing team members of equal rank on the faculty and co-ordinating their teaching.

In addition, there are a number of discussions of practical solutions to problems which we know are being faced by many school districts throughout the country. We hope you'll make it a point to review as many as possible of the following

articles:

1. The Belen, New Mexico, schools have developed a unique health program and research project (pg. 22). The community-wide program is strictly on a volunteer basis. Physicians donate their time and services to examine eyes and teeth and to administer tests and give complete physical checkups to school children.

2. The Des Moines, Iowa Independent Community School District proved that a school bond election can be won through the use of brochures, newspapers, school papers, radio, TV and printed and oral means. The JOURNAL brings you a report on how this district won their fifth successive bond election in 14 years through the use of these media, working on the assumption that voters must be informed and must be encouraged to vote favorably (pg. 24).

3. When should a school board question or suspect the low bid? This question is answered for you in the JOURNAL with a thorough discussion on what to check in the low bid group. We hope you'll read and remember the pointers (pg.

37) that are given in this paper.

4. Good school construction requires careful planning. The JOURNAL brings you a report by a former business manager of the San Bernardino, California, schools, citing the advantages of using standard drawings, planning and equipment

These are only a few of the articles that we know will make worthwhile and interesting reading for you. Also featured this month are a guest editorial and the NCSC convention report. Don't forget to take a look at our regular departments,

for December ...

In the very early years of school systems, education was considered adequate if it covered "Reading, Writing, and 'Rithmetic." But gradually there grew the belief that more high school students should have more advantages, and the one-teacher district was no longer satisfactory. Your JOURNAL for December analyzes the size of the high school with a discussion on the ideal size based on enrollment, and how this ideal can be achieved.

The Editor

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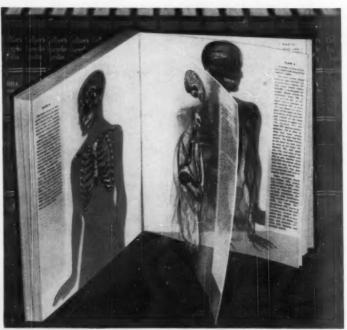
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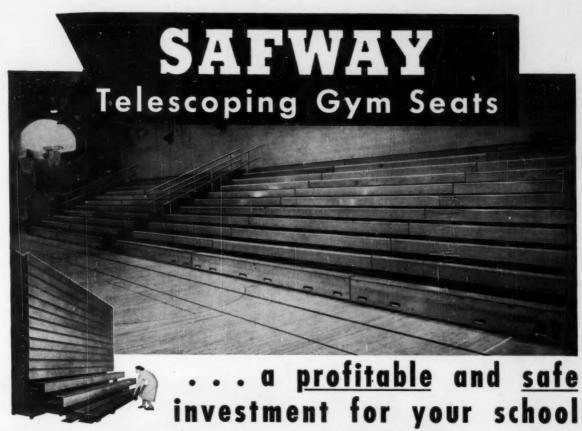
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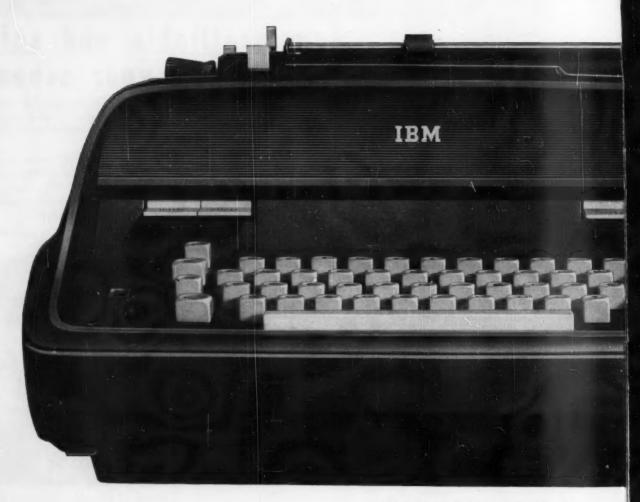








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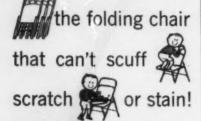
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Surveying the School Scene

news notes of special interest

BOMB BLASTS SCHOOL

At Houston, Tex., a homemade bomb, deliberately thrown onto a paved playground blasted the Poe elementary school on September 15. At least four children and two adults were killed. Rescuers sped 27 children and the school principal to hospitals. Three of the dead and most of the injured were children. A woman teacher and a school custodian were killed outright.

The school was attended by 682 pupils in a fashionable residential area of Houston. No racial issue was involved and no schools were integrated. The bomber was identified as Paul H. Orgeron, an ex-convict who was disgruntled by his unsuccessful efforts to have his son enrolled in the second grade, rather than the first grade.

RUSSIAN TAUGHT IN 400 SCHOOLS

It is estimated that more than 400 schools throughout the country are now teaching Russian. Before the first Sputnik, only 16 schools were offering courses in the subject. The sharp change was reported by Mrs. Helen B. Yakobson, who has been observing instruction in the Russian language for the government's Office of Education.

RAP EGG-CRATE SCHOOLS

Present-day school buildings are much better than they used to be, but they still have a long way to go to meet the needs, according to the Educational Facilities Laboratories of New York City.

The contemporary school, says the EFL, still has an egg-crate uniformity, with most of the classrooms exactly the same size. Instead, EFL contends, there should be a variety of sizes — small areas for remedial work and extra-large rooms for occasional lectures. It says: "Rarely does one see acknowledged in school design, that certain types of learning should take place in smaller classroom spaces, or that under certain circumstances, 100 or more children might profitably be gathered together from time to time to learn."

The report predicts a shift in school expenditures as schools and colleges tend to place more responsibility on students for their own learning.

To date, the organization has made grants of \$503,587 to 16 educational groups for research and experimentation. It has also appropriated \$248,500 for self-administered projects. Among the latter is a publication entitled "The Cost of a Schoolhouse." designed to help school boards, administrators, and architects, in planning school buildings more economically.

BABY BOOM IN EARLY '59

The U. S. Public Health Service reported on September 28 that more babies were born in the United States during the first seven months of 1959 than in the corresponding period of any prior year. There were 2,434,000 registered births during the January to July period this year, compared with a previous high of 2,420,000 in 1957.

EDUCATIONAL EXPENDITURES

The total direct national expenditures for education in 1958 amounted to \$16,699 million, according to the U. S. Bureau of the Census report on governmental finances. The Federal Government spent \$917 million, the state governments spent \$2,873 million, and the local governments, \$12,909 million. The per capita

expenditures amounted to \$96.38, of which the federal outlays amounted to \$5.29, and the state and local governments \$91.09. The 1958 expenditures for education represented an increase of 11 per cent over 1957. The federal outlays dropped 5 per cent, the state and local outlays rose 12 per cent.

CONSTRUCTION BILL INTRODUCED

Two Republican senators have introduced a new school construction bill in Congress, in an effort to come to terms with the Administration.

The bill calls for building 100,000 classrooms over a four-year period, at a cost of \$4,000,000,000. One half of the cost would be paid by the government over a 25-year period. Classrooms would be built at the rate of 25,000 a year, as against the Administration's proposal of 15,000 a year.

RELIGION IN THE SCHOOLS

The U. S. Circuit Court of Appeals in Philadelphia has given temporary permission for the reading of the Bible and the recitation of The Lord's Prayer in Philadelphia public schools

- Wisconsin public schools have been ordered to stop released-time religious instruction programs because the State Attorney General said they violate the state constitution. State Superintendent George E. Watson sent a letter to all school boards warning them to bring their programs in accordance with the state constitution.
- In Kalamazoo, Mich., the school board has proposed a new policy on religion in the schools which recognizes the fundamental virtues common to all religions, but forbids approaches of an evangelical, sectarian, or denominational nature.

CHARGES DELINQUENCY STEMS FROM MEDIA

The High School Teachers' Association of New York City, in a conference on September 16, charged that juvenile delinquency stems partly from books, magazines, motion pictures, and television programs that undermine the morals of teen-agers. The teachers held that the abuse of these media serves to create a false picture of American life and standards of character not only in our own country but also abroad.

The teachers have asked that a study be made with a view of protecting high school students from these demoralizing influences. They asked that motion picture producers refrain from producing pictures which glorify heroes and leaders of the underworld; pictures which display insensitivity to well-established moral standards, and programs which often depict weakness and inefficiency in our law-enforcement agencies and government officials.

INTEGRATION

Attorney General Stanley Mosk of California, in an opinion rendered on September 17, has ruled that a California public school cannot conduct a sports program on a racially segregated basis. The opinion was aimed at John Swett High School in Crockett, which had a swimming team but no pool. The school had arranged to use the pool facilities of the privately owned Crockett Club, a men's social club which refused admittance to Negro stu-

(Concluded on page 47)



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N.S.B.A. REPORT

1960 NSBA convention theme -

Education For World Leadership

PETER PROUSE

Associate Executive Director, NSBA

Robert E. Willis, president of the National School Boards Association, has announced that the theme of the 1960 convention will be "Education for World Leadership." The annual meeting of school boards association leaders and school board members from all parts of the nation will take place in the city of Chicago from April 24 through April 27. More than 7000 participants are expected to attend

the four-day meeting.

At the same time that Mr. Willis made his announcement, the National Association issued an eight-page folder describing the convention theme and the basic considerations which prompted its selection. "To begin with," states the NSBA publication, "under our democratic American system of society, the people rule. This is true whether we're talking about the formal processes of law and representative government, or the informal ones through which public opinion exerts its profound influence over the conduct of American public and international affairs. Because of this, the position of the United States as a world leader depends to a very great extent upon how well the public schools prepare our citizens to understand and meet the national and international challenges of today and tomorrow.

*Throughout the history of our country, American leaders have called attention to the fact that a democratic system of government such as ours can survive only among an informed and articulate people.

"The United States cannot long remain a world leader," the folder continues, "unless its own social, political, and economic system is strong; and that system will not remain strong unless the nation's people understand it, accept its foundational principles as their personal, active philosophy of society and government, participate in its formal and informal democratic processes, and are willing and able to defend it with strong arms, hearts, minds, and voices."

Turning to the problem of the schools' responsibilities for informing students about international issues and relationships, the NSBA publication states: "Even with a

strong system of our own, the American people cannot expect to measure up to the international problems of the times unless they are well informed about the peoples and systems of other nations—their histories, traditions, aspirations, economies, problems, patterns of thinking, and other factors—and unless they possess a basic knowledge of the processes and problems of diplomacy, trade, and other important international relationships."

A third area to which the NSBA will give special attention at the 1960 convention is concerned with the need to improve human relationships through better interpersonal, intergroup, and international communication. The NSBA notes that "as national and world society have become more and more complex and interdependent, the need to train our people in the knowledge, skills, and values of effective and ethical oral communication has become increasingly crucial. 'Freedom of Speech' now involves more than mere freedom to talk and listen—in this age of mass persuasion, a man is not really free unless he can do both with critical intelligence based upon educated understanding and trained skill."

The NSBA will thus examine three vital areas of concern in public education today: (1) teaching the foundations of American civics and citizenship, (2) developing the bases for knowing the world in which our nation must participate and compete, and (3) providing the opportunities for learning the attitudes, values, and skills which make effective oral communication between individuals, groups, and nations possible.

Several outstanding speakers and consultants have already accepted invitations to participate in the 1960 convention program. One of the speakers on the question of how well our schools are teaching the social, political, and economic foundations of the American system will be Rudolph F. Bannow, president of the National Association of Manufacturers. Scheduled to make an address to the Fifth General Session on "Speech and Communication—Vital Tools of Democratic Leadership in Our World" will be Dr. John Dietrich,

president of the Speech Association of America, and chairman of the Department of Speech at Michigan State University. Sharing the platform with Dr. Dietrich will be Charles H. Percy, who will speak on "Modern Techniques for Improving Communication." Mr. Percy is president of the Bell & Howell Company, chairman of the Board of Directors of the Fund for Adult Education, and a trustee of the University of Chicago. He served on the study group which produced the Rockefeller report on education entitled The Pursuit of Excellence. Another speaker in the area of communications will be Dr. Ralph Nichols, head of the Department of Rhetoric at the University of Minnesota. Dr. Nichols is the nation's leading authority on communicative problems.

Headquarters for the 1960 convention

will be the nation's largest hotel, the Conrad Hilton of Chicago. The NSBA has also contracted for accommodations in five other large Chicago hotels, in order to take care of the number of persons expected to participate in the national meeting. Those who have attended annual conventions of the NSBA since 1949 know that each such meeting has drawn half again as many participants as the convention of the year before. Probably the most important reason for this remarkable growth in attendance is that the in-service experience of participating in annual conventions of the NSBA has proved to be of special value, both informationally and inspirationally, in helping the board members who have attended to increase the usefulness of their service to the public schools for which they are responsible. Each year more and more communities and states send their board members to the national meeting, to take part in the varied program of sessions, discussions, clinics, and special events and activities.

Board members wishing to obtain further details about the 1960 convention, including copies of the new NSBA folder as well as hotel reservation application forms, should address their inquiries to the school board associations of their respective

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Architect: O'Brien and Steiner, Warren, Ohio



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the AMERICAN SCHOOL BOARD JOURNAL

November, 1959

To improve the teaching-learning process -

Try Co-ordinate Teaching

WILLIAM M. MAHONEY

Superintendent of Schools, Norton, Mass.

All who are concerned with public education and the task of improving the teaching-learning process count among their blessings the great educational foundations and the philanthropic organizations that are pouring thousands of dollars into research projects designed to open our eyes and lead the way to better techniques in the training of youngsters in our schools. However, the very fact that these sources of revenue exist does raise a serious question in the minds of some of our public concerning the effectiveness or ineffectiveness of school systems that do not have the benefit of some of the funds currently available for research. Like the school system that provides only as much audio-visual equipment as the PTA is willing to buy, there is undoubtedly good reason to believe that many school systems with ideas worth trying are putting them on the shelf for lack of an outside sponsor.

The purpose of this report is to describe an experiment conducted in two sixth grades of a small New England school system without special funds or the impetus of a university research project. It was undertaken simply because it seemed to have some promise and because the teachers and administrators involved were vitally concerned with doing something good a little bit better.

Creation of the Project

Co-ordinate teaching was born out of "jealousy!" Some staff members of the Norton, Mass., schools were very much enthused about the exciting things they were hearing from the "team teaching projects under way throughout the country and set about to see how these techniques could be utilized in the local situation. Investigation revealed three specific things: (1) Team teaching meant something quite different to each school system employing it. (2) It was experimental, wherever it was used, and little could yet be said about its total effectiveness. (3) Most experiments were quite costly, some of the more promising ones subsidized by foundation or university grants.

These three conclusions determined the design of the experiment the Norton system was eventually to devise.

If it were true that no two concepts of "team teaching" were really alike, then, why would it not be better to develop a program that would best suit this community without borrowing ideas? This goal, it was felt, could best be achieved by scrapping preconceived notions of team teaching and starting from the beginning.

Because of the confusion surrounding terminology, the name "team teaching" was dropped and "co-ordinate teaching" was substituted. This name seemed more descriptive for, unlike some projects where teaching teams are made up of master teachers and regular teachers, the Norton plan called for choosing team members of equal rank to "coordinate" the teaching program.

Co-ordinate Teaching - What It Is

Co-ordinate teaching, as envisioned by the Norton school staff, meant the assignment of approximately 60 children to two teachers. These two teachers were to operate as a team, each to be responsible for the entire 60 youngsters in all areas of pupil growth. The first question that comes to mind is that this is little more than the simple departmentalization of two self-contained classrooms. This was far from the Norton concept. The two co-ordinate teachers, under this plan, continue to teach all subjects in the curriculum. However, the teacher who had an extremely high interest in a certain phase of one subject took the responsibility for teaching this unit of work to all children. For example, the teacher who is particularly capable in the biological aspects of elementary science can now spend much more time on his preparation for teaching the phenomenon of photosynthesis to sixth graders because he knows that the unit on electricity and magnetism is being prepared by his team mate. One can see that the necessity for close



"Co-ordinate teaching serves as an excellent medium for the recognition of individual differences in a heterogeneous classroom."

and constant co-ordination is a prime factor here.

In short, then, one important distinction of the co-ordinate teacher is that the school system capitalizes on his special interests.

The co-ordinate teaching plan takes advantage, also, of other possibilities that are readily evident under this arrangement. Flexibility is one of the keystones of the system. Therefore, the two co-ordinate teachers can literally play their pupils like chessmen shuttling them back and forth from group to group as the various units of work or subject matter periods change. Of course, caution must be used and careful checking and evaluation of pupils must be carried out lest serious gaps arise. At all times, pupil assignments to each group were made with the criteria of the child's needs and his ultimate school achievement foremost.

Allows for Flexibility

From time to time most teachers experience a situation where the personality of a pupil will not adjust to his own personal make-up. This pupil-teacher personality clash can be minimized by the teacher, who, because of his maturity and basic understanding of children, accepts the fact that such unfortunate instances occur, but not so, with the pupil or his parents. What administrator has not experienced the uncomfortable situation of having a parent berate a good teacher who simply does not "get along" with a pupil? To change the pupil to another classroom is always demoralizing to the school and often starts the child on an adjustment pat-

tern that reaches an inglorious climax only when mama cannot have his drill sergeant changed upon reaching military age, or when an equally disastrous lack of adjustment happens in college or vocational life. The co-ordinate teaching plan gives the administrator a great degree of flexibility. Therefore, a youngster can easily be shifted without any noticeable effect on the class, so the majority of his associations would be held with a teacher to whom he could adjust. Very often this temporary change of scene will get both teacher and pupil "over the hump" so normal relationship can continue at a later date.

Likewise, research has shown that the interrelationships within a group can play an important part in the progress and the behavior of individuals. If the social structure changes radically within the classroom, there are bound to be drastic and, often, explosive, changes in the behavior of the child who falls from a position of leadership to rejection. It is recognized that in the average elementary classroom, there is much shifting within the social structure of the group. Sociometric teachniques keep the teacher informed of these changes. However, the co-ordinate teaching plan will enable the teacher to provide the welcome change of environment that will help to solve the child's problem.

Co-ordinate teaching serves, too, as an excellent medium for the recognition of individual differences in the heterogeneous classroom. For the two teachers can easily assign special projects to children who are more gifted in certain areas and one teacher can work with them in small group situations while

the other teacher is taking a larger group. The flexibility afforded by this plan offers the same small-group benefits to youngsters who need special help in subjects.

Evaluation

Pupil evaluation, it was felt, would be the most difficult phase of this experiment, but it has developed very easily and has proven to be one of the most positive aspects of the entire research. The two co-ordinate teachers grade each child in all areas where they have worked co-operatively. Instead of finding conflict on this score, it was found that the teachers themselves tended to be more objective and to have better evidence for their pupil progress grades.

Evaluation of the total project is still under way. While it is doubtful that such an experiment held in such a limited way at only one grade level could yield significant statistical evidence concerning its value, there is no doubt but what parental support, pupil acceptance, and teacher enthusiasm is behind this experiment.

It is certain, statistically, that there has been no loss of achievement. Another year, the plan will be expanded to include other classrooms. As the number of educational experiences offered to children under the co-ordinate plan increases, it will become possible to design instruments to sift out the factors contributing to pupil success and to determine whether or not "co-ordinate teaching" is exerting a positive influence, or if this success is the result of other factors.

The place of the principal in this type of organization cannot be minimized. It is his job to insure that units taught fall into logical sequences and that no serious gaps occur in covering the curriculum. To be sure, the position of the principal becomes increasingly important under this plan, but actually his responsibility is essentially the same as that for all other efforts toward curriculum improvement. He is essentially the individual who helps his staff to reach the happy conclusion of deciding that which is educationally efficient, psychologically wise, and administratively expedient for inclusion in the curriculum offered to the boys and girls of his community and his school.

Finally, co-ordinate teaching is not offered as an end in itself or as the panacea of all that is right and mighty. However, it is offered as another good way of broadening the base and adding to our professional skills, to be used when it will do the best job of creating the kind of teaching-learning situation where boys and girls can learn to the extent of their capacity, and the teacher can teach to the best of his ability.

Developing Certified Personnel Policies

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Although the school board officially "makes" policy and the superintendent ordinarily recommends policies to the board for adoption, policy development should be a wholly co-operative endeavor. With this in mind, a study was made by the writer at the University of Southern California under the chairmanship of Dr. Emery Stoops, in order to develop a set of criteria which would serve as a guide to school districts for the formulation of policies relating to certified personnel.\(^1\) These criteria were based on the use of democratic or cooperative methods.

The criteria were developed with the assistance of a jury of 33 men who were considered specialists in educational administration. Eleven of them were actively engaged in administering public schools, 18 were on college staffs, one was an educational consultant, one was the executive secretary of an administrators' association, and two were authors in the field of educational administration

The criteria were grouped according to six major categories: (1) planning for policy development; (2) representative participation; (3) organization for policy formulation; (4) board study and adoption; (5) publication; and (6) evaluation of policies. These are presented in the sections which follow.

Planning for Policy Development

1. The school board, with the aid of its professional staff, should adopt a general statement of philosophy to serve as a

guide for the formulation of policies relating to certificated personnel. The professional staff includes all certificated personnel. One of the first considerations in policy development is the need for a general statement of philosophy which sets forth the basic thinking of a school district. Whether the philosophy establishes autocratic or democratic ways of action is not as important as the fact that all actions taken by a school board are consistently developed within a clearly understood and accepted frame of reference.

2. The statement of philosophy should provide for the co-operative development of its personnel policies whereby all who are concerned with carrying out should have the opportunity of participating in the formulation and review of those policies. This participation of personnel may be indirect, through selected representatives, or direct, by staff discussion and reaction to policies during their formulation.

3. Participation should be genuine, the recommendations of personnel being considered and acted upon by the superintendent and the school board. School boards should realize the importance of acting on the suggestions of personnel, whether they accept or reject them. This is particularly important, (1) for the sake of high morale, and (2) in order to utilize valuable ideas which may be contributed by teachers, principals, or other staff members.

Criterion: The school board must, by law, always retain final authority for veto or approval of the recommended policies. In any organization there must be some one person or group which has the final authority to accept or reject

all proposals or recommendations. In school districts, the school board, by law, has this authority and it cannot delegate this responsibility, even if it wished to do so.

4. The superintendent, as the trained administrative leader, should be responsible for supervising and co-ordinating the formulation of policies which concern certificated personnel. The school board, as a lay group, cannot personally direct all the necessary procedures for formulating policies, even though they may, in some cases, attempt to do so. The leadership for policy formulation should be one of the functions of the superintendent. Although he may delegate some of the responsibility for details to appropriate members of his staff, he must maintain the final responsibility for the success of the delegated action.

5. Provision should be made for twoway channels of communication between teachers, the superintendent, other administrators, and the school board. These channels should be clearly described and made known to all personnel so that information may be passed easily from any group or individual to any

other group or individual.

6. Channels, other than the traditional chain-of-command channels should be maintained through which the individual has the right to present evidence of the inadequacy of policies relating to certificated personnel and to help establish new ones. This criterion provides some means of communication when the usual chain-of-command channels are closed or clogged. Such channels as indicated by this criterion should be used only as a last resort and after the usual chain-of-command channels have been attempted to no avail.

³Russell E. Johnson, "The Development of Procedures for Formulating Policies Relating to Certificated Personnel." Unpublished Doctoral Dissertation, University of Southern California, Los Angeles, 1958, 550 pp.

- 7. In the plan of organization for the formulation of policies relating to certificated personnel, lines of authority should be clearly defined and specifically described — including major functions, responsibilities, and divisions of work. In establishing any organization, particularly a democratic one which involves many people, there is need for clear thinking and a knowledge of what should be done and who should do it. The plan of organization, however, should not be so rigid or inflexible that it binds participants or limits action. Rather, it should clarify functions, lines of action, and responsibilities. It should eliminate misunderstandings, overlapping authority, or dual responsibilities. Clarification should be the intent rather than rigid rules which prevent the free expression of co-operative thinking and action.
- 8. Opportunity should be provided for participants to meet with the school board and superintendent to discuss the personnel policies which are being formulated. This criterion provides for mutual discussions in order to clarify the thinking of teachers, administrators, and the school board, even though their representatives had participated in the formulation of the policies.
- Resource materials and resource consultants should be made available when requested by participants or committees. Such materials and consultants which involve the expenditure of money must be planned for in the preparation of the budget.

Selection of Participants

Since the second criterion in the previous section provides for the co-operative development of personnel policies, it follows that some means should be provided for achieving this objective. The following criteria make such provision.

1. All interested groups of personnel should have the opportunity of participating in policy development through elected representatives. These groups might be grade levels, subject matter areas, schools, levels of administration, or the teachers' organization. It is wise, however, to keep representation from becoming too large and unwieldy.

2. Personnel with special interests, knowledge, or abilities should be appointed to work on personnel policy development. These people should be carefully selected. They should become members of the larger group of participants who were elected.

3. The superintendent and school board should have a close working relationship with committees and should be available for consultation. They should participate as needed, so that policy formulation becomes a wholly co-operative endeavor, neither dominated by administration nor the school board.

4. The district teachers' organization should take an active part in the formulation of these policies. This should be done either by electing representatives, by serving as an advisory group, and/or by working through their committees, such as the ethics committee, the salary committee, or the professional relations committee.

Organization of Participants

Once the participants have been selected, they must be organized into workable groups. The following criteria pertain to the organization of participants for policy formulation.

1. Participants, once selected, should be organized into committees to work on policies in those areas of personnel administration in which they have a pasticular interest, such as in-service training, salary schedules, evaluation of personnel, and so forth. If such a division of work is not made, the number of participants would be too difficult to handle effectively. Also, the field of personnel administration encompasses too many different areas for any one group

to do a thorough job of study and research.

- 2. A steering or co-ordinating committee should be provided to integrate the program and organize the over-all planning so that committees will not go off on tangents. This committee might well be called a leadership committee. It should divide participants into subcommittees; should assist each sub-committee with its plans; should see that they meet as scheduled; should collect periodic progress reports; should co-ordinate their activities; and should arrange for intercommunication between them.
- 3. Each committee, with administrative guidance, should select its own officers; define its purposes and goals; plan the times of its meetings; and determine its activities according to the desires of the group it represents. The phrase "with administrative guidance" was included so that committees of inexperienced personnel would be given some direction without dictation, it would be hoped in carrying out its functions

PROCEDURES FOR

	Crit	Criteria met			
Criteria	Y	63	Λ	10	
 The school board has adopted a statement of ph losophy governing the type of procedure to be use in formulating policies. 	d ()	()	
The statement of philosophy provides for co-operative development of personnel policies whereby a concerned personnel may participate.)	()	
3. Participation is genuine.	()	(1	
 The school board retains final authority for vet or approval of recommended policies. The superintendent is the responsible leader in d 	i- ()	(3	
recting and co-ordinating the formulation of the policies. 6. Two-way channels of communication are provided.	ed ()	(1	
between teachers, the superintendent, other admin istrators, and the school board. Other channels are also provided through whice individuals have the right to present evidence of	h ()	(
the inadequacy of personnel policies and to he establish new ones. 8. Lines of authority are clearly defined and speci	lp f-)	(
ically described—including major functions, r sponsibilities, and divisions of work. 9. Opportunity is provided for the participants meet with the school board and superintendent	to ()	(
discuss policies under consideration.	()	(
 Resource materials and resource consultants a made available to participants. 	(()	(
 All interested groups of personnel participa through democratically elected representatives. 	te	()			
 Personnel with special interests, knowledge, abilities are appointed to policy formulation cor mittees. 	or n-				
13. The superintendent and school board have a cloworking relationship with policy committees, at participate as needed so that policy developme is a co-operative endeavor.	se nd nt	()			

4. Committees should proceed slowly and study the proposed policies or revisions in detail, making use of all pertinent sources of information, such as past board minutes, policies of other districts, administrative rules and regulations, research studies, and publications on personnel procedures. The idea of slowness was included to preclude the possibility of rushing through the job without taking the time to secure all necessary information and really to study it.

5. Provision should be made so that participants do not spend so much time and energy in formulating policies that their regular work suffers. This relief might be in the form of released time with the provision of substitutes and/or clerical assistance. It is recommended that budget provisions be made to take care of the financial considerations involved and that the professional relations committee of the teachers' organization consider the problem of granting credit of some sort for professional advancement, in-service training, or institutes, depending upon the importance

of the job of the teacher.

6. Certificated personnel who are not participants should have the opportunity to react to those personnel policies which affect them before they are recommended to the school board for adoption. Inherent weaknesses in the democratic process sometimes cause communication between representatives and the represented to be lost. It is therefore important that the entire group have a chance to react to the tentative proposals before presentation to the school board.

Study and Adoption of Policies

After the policies relating to certificated personnel have been co-operatively developed, they should be studied and then formally adopted by the board.

1. All policies relating to certificated personnel should be studied in detail by the school board before adoption. This statement was included to deter school boards from making hurried adoptions without understanding the full implications of the recommended policies. Even though they may have had representa-

tion on the co-operative committees, it is necessary that all board members, meeting as a board, have a full and complete understanding of the major principles presented in the policies.

2. The school board, upon the recommendation of the superintendent, should formally adopt all personnel policies it finds acceptable and make them a part of the official board minutes. It is most important that school boards officially adopt policies and record their action so that everything becomes a matter of public record. The superintendent as the educational and administrative leader of the school district should make the recommendations regarding policy to the school board. These, they may accept or reject with the acceptable ones being handled as stated in the criterion.

Publication of Policies

Policies relating to certificated personnel should be written, placed in a manual or personnel policies handbook, and made available to all who are concerned. Too often policies have been adopted and even printed without being distributed to those who are affected by them.

Evaluation and Review of Policies

There are many cases where policies have been left unchanged for years. This type of stagnation is detrimental to good administration and to the morale of the staff. Policies should be evaluated and revised or amended periodically. This evaluation and revision should be cooperatively carried out in the same manner as the formulation of new policies. Such changes should be made known to all who are concerned.

1. Policies relating to certificated personnel should be evaluated periodically and revisions made as needed so that they may be kept up to date.

There should be an annual review and re-adoption of these policies.

The first of these criteria provides for continuous and positive thinking about the policies and provides for revisions as and when needed. The second provides for an annual review and re-adoption which will call attention to the existence of the policies, thus preventing them from being overlooked if periodic revision has not been accomplished.

Summary Statement

If the criteria listed above are followed, a school district should have a step-by-step, logical method of formulating those policies which relate to certificated personnel. These criteria provide for the planning stage of policy development, for the securing of representative participation, for the type of organization to be used, for board study and adoption, and for the publication and evaluation of personnel policies.

POLICY FORMULATION

	Criterio	met
Criteria	Yes	No
 The district teachers' organization takes an acti part in personnel policy formulation. 	ve ()	()
 Participants are organized into committees to we in those personnel areas in which they have a pa- ticular interest. 		.()
16. Each committee, with administrative guidance, selects its own officers, defines its purposes and gos plans its time of meetings, and determines its attivities according to the desires of the group represents.	als, ac-	()
 Committees proceed slowly, study the proposition of revisions in detail, and make use of pertinent sources of information. 		()
 Provision is made so that participants do not spe so much time and energy in policy developmentat their regular work suffers. 	ent	()
 Non-participants have an opportunity to react those personnel policies which affect them, dur formulation and before recommendation for ad- tion. 	ing	
The school board studies all recommended police in detail before adopting them.	cies ()	(
21. The school board, upon the recommendation of superintendent, formally adopts all personnel p icies it finds acceptable and makes them a part	ool- of	
the official board minutes. 22. All policies which concern certificated person are written, placed in a manual or personnel picies handbook, and made available to all c	ool- on-	
cerned personnel. 23. Policies relating to certificated personnel are evuated periodically and revised as necessary.	val-	
 Policies relating to certificated personnel are viewed and re-adopted at an annual meeting. 	те-	(

Keep Your School in Focus

E. ROSS HARRINGTON

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"How many of you students would like to see your picture in the paper?" asked the school principal busily readying a camera. Every hand in the room went up!

"We would like to take a picture of the fine map projects you boys and girls have just completed," continued the professional educator and part-time photographer. "We will give the picture to the editor of the paper, and if he likes it, he may use it. We would like to have your teacher and two or three of you in the picture."

After the teacher and the class had decided on a fair way to select the chosen few to appear in the picture, the group posed with their project, the picture was taken, and soon the film was on its way to a photographer's studio for processing.

When the prints were completed and returned to the school, a paragraph was written by the principal identifying the people in the photograph. He also included a brief story of the project and how it fitted into the curriculum of the school. Both the photograph and the caption were sent to the classroom teacher. She posted it on the bulletin board for all to see. The caption was read, discussed, corrected, and returned to the principal, who then sent it through proper channels to the local newspaper.

A few days later the picture was published. The following morning several clippings were brought to class, and at least one was placed on the bulletin board.

What did the principal accomplish with his picture taking? His photographic mission fostered morale, improvement of instruction, and public relations—all three important ingredients of a successful school.

The camera, properly used, is an instrument which will build morale. The teacher whose picture appeared with her children and their map projects experienced a boost in morale.

Pupil morale cannot be overlooked either. School work that is good enough to be photographed and put in the paper must be pretty good. Pupils in a school with a camera-toting principal soon learn this and strive for more excellence.

The camera is also a supervisory tool and can be used effectively to improve instruction. When the story of the map project appeared in the press, it told the school and the community that a mapmaking project is a good way for children to learn geography. Other teachers in the building may ask questions and come to the classroom to see the map projects.

Public Relations Weapon

The camera is also a vital public relations weapon. The map-making picture exposed as a canard the report that children were no longer being taught geography. Similarly, if people have been misled by recent books into thinking that phonics is no longer taught, it is time to take some pictures of phonics lessons in progress. The school camera can be a useful implement to repel the attacks of misinformed critics.

But as a tool for the shaping of year-in year-out good will, the camera is perhaps even more important. Every time a child's picture appears in the paper, his parents receive an inner glow of satisfaction. Maybe they have had doubts, but now they are reassured that the school is doing an acceptable job of educating their young-

Does your school have a camera? If not, better get it in the school budget. If board finances prohibit this, at least for the time being, buy a camera for your own hobby and use it for school purposes if needs be. If used well, your community and school will soon be convinced of its need.

Below left, a fractions bulletin board is being completed by this sixth grade class. Below right, even a singing lesson can be photographed. Right, new teaching devices like this electrical board to teach multiplication tables make good school news pictures.







The Role of Administration in Policy Making

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An essential unity is found in the operation of any successful form of government. In democratic governments, institutions, or enterprises it is important that this unity be understood. For a number of years, unity has depended upon co-operative relationships among the legislative, executive, and judicial branches of government. Oftentimes, however, one has difficulty in achieving unity because of the many activities and services which have heretofore been classified according to these three categories. An increased number of co-operative or sharing - type activities are necessary in reaching maximum social potential. Perhaps another basis of classification has come to be necessary.

In an attempt to achieve a more functional classification than the foregoing - a classification which includes the rapidly developing services of administration - a professor of political science at Ohio State University suggested some 20 years ago, a simple diacodemy consisting of "politics" on one side and "administration" on the other.1 By politics in government is meant the lodging of ultimate authority with the citizens at large. They, or their representatives voting as a body, determine public policy or make the laws. Administration takes over at this point to execute or enforce public will.

This classification seems, however, to oversimplify the operation of a highly complex form of government. Yet, it is a thought-provoking and stimulating consideration of the relationship which is coming to exist, in recent years, between politics—the will of the people in an organization—and administration.

Administration, the latest fruit of the long established science of politics, is still in the developmental stage as a field of study. Woodrow Wilson and other eminent students of government concurred on this point. Because a serious study of administration in this country is said to have begun with Wilson's brilliant essay in 1887, one doubts if administration has yet reached full maturity or even adolescence.²

Early definitions of administration described it simply as policy execution. Somewhat later administration was defined as the management of men and material. Such definitions are inadequate today. No wonder so many persons with administrative titles during the first decades of the twentieth century, performed as little czars or dictators. Such performances were even observed in numerous public schools. Today it is understandable how the foregoing limited view of administration tended to promote and encourage autocratic action.

It is the purpose of this presentation to reflect upon a second dimension in the developing concept of administration — a concept which identifies participation in policy formulation as an administrative aspect of policy making. The cue for this is taken from the recognition by political scientists that administration is closely related to politics, public will, or policy; and from observations relating to how democratic institutions operate.

From a functional standpoint it is observed that in democratically operated enterprises or institutions the legislature, the board, or the directors, in and of themselves do not always make the

policy. They do not, because today there are two mutually related aspects in policy making. They are policy formulation and policy determination. The wisdom of providing administrative personnel the privilege of participating in the formulation aspect has been demonstrated repeatedly. The ultimate responsibility for policy determination remains, however, as an exclusive responsibility of the representative hody.

sibility of the representative body. One of the principal needs of the "legislature" in a democracy is representation. Its counterpart in administration is competency. A combination, not a separation of the two, is possible and highly desirable. Note that representatives of government are often chosen by the citizenry from large jurisdictions where it is difficult to know each candidate's background, and many board members or directors serve without pay, as nonprofessional laymen. For these two reasons it is easy to see how trulyknown, competent, representative "lawmakers" are sometimes not elected to certain of the complex positions represented in modern institutions. Here is where administration - a close relative of politics - has taken on, only recently, a second dimension. Administration can help materially in the formulation of policy, whereas the representative board or legislature still holds the final responsibility for policy determination.

Modern Administration

A substitution is therefore proposed for the old "policy-execution" single-phased definition of administration. In its place the following new definition is offered: Modern administration, in a society that is democratically oriented, is a service function dealing with partici-

¹Harvey Walker, Public Administration in the United States (New York: Farrar & Rinehart, Inc., 1937), pp. 4-8.

pation in the formulation of major goals, purposes, and policies relating to the existence of the enterprise; and to the carrying out or execution of those which are ultimately determined by the representative body of the enterprise.

As in all developing activities or services, numerous problems are encountered. In the foregoing expanded concept of administration problems relating to adequate controls over administrative actions, and their relation to court decisions are not overlooked. However, it seems that the possibility of grave problems arising in those two areas is lessened when competency is increased and reflected in policy determination.

Administrative Participation in Policy Formulation

Some examples of this broadened concept of administration should be helpful, and are cited. Note that Congressmen in the United States Government, though salaried as full-time workers and provided with some clerical help, are nonetheless representative farmers, lawyers, industrialists, and doctors, to mention only a few. They are in a sense "laymen." How can they arrange the time, or personally provide all the finan-cial resources needed for research in determining the findings which are necessary before proposing legislation, or even voting intelligently on the proposals of others? Obviously the task is too great. An example of such assistance is taken from the early 1920's when the Bureau of the Budget was created by Congress for the express purpose of helping members of Congress determine sound policies with respect to government finance. Today the Bureau has a permanent fulltime staff of financial experts. Let us call them administrators who work in the Executive Department of the Government. In other words, Bureau personnel participates in the formulation of budget proposals, and, with the President, makes available to Congress research findings and great quantities of grouped data on financial matters. Recent newspaper articles testify to the fact, however, that Congress is responsible, in the final analysis, for policy determination in all such matters involving the federal budget.

Another frequently cited example of administrative participation in policy formulation comes from municipal government — the city-manager type of administration. Here the manager is a competent administrator who is appointed by the council. He participates in policy formulation by celling to their attention things which he has found through research and experience to appear necessary and wise. He recommends; they adopt or reject his recommendations and thereby actually determine the over-all policy.

What is happening regarding policymaking in industry? Here also one observes shared activity. Attention is directed to the automotive industry. In one of the leading companies, policy making by the stockholding directors, and the president himself, had brought the organization to the verge of financial ruin in 1944. Then a younger man took over as president. He saw the importance of giving individual plant superintendents and other administrative personnel a part in policy making. Each of the 15 plants was made autonomous. The phenomenal financial growth of the company since then provides one of the most striking success stories of the present generation.8 In somewhat similar manner, another of the "big three" in the automotive industry has remained strong because of its separate and autonomous plants wherein participation in policy formulation by administrative members has been encouraged. Without eliminating co-operation, this practice has kept the operations practical and the determined policy basically sound.

"Administrators of manufacturing companies make the company's decisions, many of which are important to its future welfare," according to Lohmann and Mee.⁴ Even more comprehensive is their statement that,

There is general agreement that the administration of the company, its top officials, should determine its objectives, set major policies, develop over-all plans, administer its operations, and train and maintain a capable organization.⁵

This latter statement seems overly strong and tends to imply absentee ownership or directorship, which appears to be rather common at present in certain industries. The authors do recognize, however, what they refer to as a number of limitations on the administrator in this capacity, the main one being that he must move slowly and win his subordinates' acceptance of his plans. One is inclined to believe, however, that to give one person, though called administrator, so wide a range of authority is little better than to leave similar responsibility to an autocratic board president or to a partially informed board of directors.

Workers Participate in Policy Formulation

One of the main reasons why an administrator's participation in the formulation of policy has been found important to the success of certain enterprises is because his proposals represent the combined and synchronized contribu-

tions of all members of the organization, including of course his own. Unless an enterprise is organized so as to tap and encourage leadership, wherever it exists or wherever it can be developed, the enterprise is not reaching its social potential.

Today an administrator cannot know everything about a modern shoe factory of which he may be head—despite practices in shoe factories a few generations ago. Today he must look to his statisticians, chemists, quality control workers, designers, salesmen, and psychologists to tell him what is happening in the business. He needs them. He must have them. He co-ordinates their findings and carries the results to the board of directors in the form of policy recommendations.

The history of school administration vividly depicts the narrow "policy-executing" concept of administration which existed in most districts until the 1930's and still persists in a few backward communities. In 1836 when the first local district "superintendent of schools" was named by the board, he was given no discretionary powers whatsoever. He did only what the board members as a group decided was important. The board formulated and determined the policy as a single action. The so-called superintendent simply executed board policy. Gradually, however, owing in large measure to the integrity of men named to the superintendency, to their concern for the welfare of growing boys and girls, and to their developing understanding, the situation improved.

Professionalized administration began to emerge in public schools. Men began to be selected for the superintendency on the basis of training and ability. They were provided research workers. Scientific methods started to replace guessing, and competency became a more desirable consideration than family relationship or favoritism, in selecting staff members. The superintendent came to be recognized as the chief-executive officer responsible directly to the board for the total educational effort. The size of the board was reduced thereby discouraging the extensive use of standing committees on the board committees which previously had performed most of the administrative duties. The superintendent started helping members of the board, who were laymen, to understand the schools, their problems, needs, objectives, responsibilities, methods, and reasons for existence.

Today the regular members of public school boards are not paid, yet they meet monthly, or oftener if necessary, to render yeoman service in voting into policy, or rejecting, initial proposals advanced by the superintendent. The writer observed recently an instance where 17 typed pages of carefully pre-

^aPeter F. Drucker, The Practice of Management (New York: Harper & Brothers Publishers, 1954), pp. 111 f.

⁴M. R. Lohmann & John F. Mee, Manufacturing Management (Homewood, Ill.: Richard D. Irwin, Inc., 1955), p. 21.

¹⁷bid., p. 44.

pared material were distributed to members of the X-board of education one week prior to their January meeting. These pages were filled with research data and resultant recommendations.

In the Y-school district 55 printed pages were used in a similar manner. Teachers had aided in gathering many of the facts represented. Happenings in the schools of the district were reported covering the previous month. Extensive supporting data accompanied the superintendent's recommendation of a prospective staff member to fill a vacancy following a board-approved leave of absence for a regular teacher. The board decided against accepting the superintendent's recommendation and he was asked to continue (participating in policy formulation by looking for other potential candidates).

The written material had been read by each board member prior to the meeting. Decisions could be made rapidly because all possible angles of each issue had been detailed for board members by the superintendent and recommended action was proposed. An increase of \$273,000 in the budget for the calendar year was approved. The teachers' salary scale and that of the administrative staff was raised. New equipment was approved for purchase. A contract was let for the construction of a new elementary school building. An addition of two members to the custodial staff was approved. A 15-minute sound film and slide presentation concluded the hour-long meeting by depicting schoolwork and activities of the preceeding month.

Administration an Expanding Concept

In conclusion, the concept of administration has recently experienced spurt of growth which is reflected in practices of government, industry, religion, and education. Today it is insufficient to regard administration as simply policy execution. It is also inaccurate to imply that in a democracy the "representative boards" make all major policies.

Policy making today has two distinct aspects - formulation and determination. The former is a proper, though not exclusive, aspect for administrative and staff participation; whereas the latter is the exclusive responsibility of representative boards. Here is an example of unity in government which is

significant.

Administration is a service function which deals with participation in the formulation of major goals, purposes and policies relating to the existence of the enterprise; and to the carrying out, or execution, of those which are ultimately determined by the representative body.

Enriching High School English

KEITH D. HOPKINS

Superintendent, Kanawha, Iowa, Community Schools

For a number of years I have been worried by the fact that the students in high school lacked readiness in communicating their thoughts on paper. Just men-tioning the word "theme" to the English teacher and the student body brought protests because of the lack of association and practice in writing, and from the English teacher because of the time involved in correcting themes. The teacher felt also that there was a lack of "con-structive accomplishment" after the themes were handed back to the students.

In November, 1958, I approached the Kanawha board of education with the recommendation that a regular plan of writing themes be tried out. The board gave me the "go ahead" sign. Our plan

On Monday the English teacher assigns the writing of a theme to the junior and senior English class, to be handed in on Friday. This theme is to be about 250 words in length. This means that the junior and senior English teacher has 75 themes to correct, as well as to prepare for her home economics I and II classes. This added work, I felt, was a burden to the English teacher, yet I wanted this program to be carried out.

We are fortunate in Kanawha in that we have a number of English teachers who are no longer teaching. My next step was to get in contact with one of them to read and grade the 75 themes written each week. One of the retired teachers consented to help, and we agreed that she should receive 20 cents for each theme corrected. She picks up the papers on Friday evening and delivers them back to the English teacher the following Tuesday morning, corrected and graded. Each theme is graded (1) for the topic, continuity of thought, and ending, and (2) for the grammar and spelling. A correction code, with numbers indicating the grammatical, spelling, and other errors, is in the teacher's and the students' hands. For example, if a student wrote: "I was a nuaghty boy in the ninth grade," the reader would put a check marked with the number "2" the word nuaghty.

After the papers are returned to the English teacher, she records the grades, and passes them back to the students. By the following Friday, each student must rewrite and correct all mistakes listed on his or her paper. All themes are turned in with the original copies, and once again the reader looks them over. However, no grades are given for the corrected papers.

The value in this program is that all students must rewrite and correct their entire themes if they have more than three errors in their papers. This eliminates the practice student, who gets his theme paper back and says, "well, I got a 'D' on that," and throws it in the wastebasket. He must go to the dictionary to find out how to spell the word, "naughty," or consult his English book to find the correct usage of words. All of this work costs the district \$15 every two weeks.

The 75 juniors and seniors then are assigned a new theme to be due the third week. The first two or three themes are all on the same topic; after that the students choose their own topics. This is extra work and in no way interrupts the regular work in English, assigned by the English teacher. Invariably, the students who return from our college campuses repeat this one sentence: "The writing of themes is the hardest thing for me to do

in my college course."

Dr. Conant, in his study of high schools, recommends a theme a week, with no English teacher responsible for more than 100 pupils. This recommendation is idealistic but impractical in many school systems. The English teacher just does not have time to read, correct, read the rewrites, and carry on her other instructional duties. We require four years of English in our four-year high school. In 1959-60, the plan of writing themes will be added to the freshmen and sophomore English A physician administers the coccidioidomycosis test to a pupil.



In Belen -

An Intensified Health Program

PHILLIP LUDI

Superintendent, Belen, N. Mex., Schools

In our state and country, leaders in the educational field, teachers' organizations, as well as professional medical men and women have long held that one of the most important functions of formal education is the development of healthy, well-adjusted men and women—citizens of the state and nation.

This is the story of how a community of about 7500 has turned theory into practice on a community-wide volunteer service to develop a special health study program.

In 1929, there were pioneering efforts in Belen that resulted in an eyecorrection campaign. During those depression years, and continuing to the present time, eyeglasses were bought for children of needy parents. This service was financed by individual contributions; the services of the doctors were gratis; and the spectacles were obtained at manufacturer's cost. In 1937, the program was enlarged by the matching of state funds with money raised locally from contributions of public-spirited individuals. The newly organized Parent-Teachers club (predecessor of the present Jaramillo-Central P.T.A.) in 1948 raised funds to help develop the project, and during the past several years the Belen Lions Club has made regular contributions

In 1951 the Belen Consolidated Schools board of education officially adopted a school-health program that met the minimum requirements as recommended by professional associations and the U. S. Office of Education. Since then this program, still dependent on volunteer works and free services of local medical doctors, has been developed to a point of efficiency well worth the time of school administrators to observe and possibly copy.

Must Sign Permission Slips

The Belen physical examination plan involves an extensive amount of preparation. Parents are given forms to fill out that record previous medical history of each child. In all cases, parents must sign permission slips and no student is examined without this authorization. Teachers weigh and measure the height of each child, recording the data before the examination. The school nurse does the urinalyses for all those being examined. Blood tests are made for all junior and senior high school students. as well as for certain others on the request of examining physicians. Members of the local P.T.A. do much of the clerical work and handle the traffic problems involved in the examining of approximately 130 children, the number that are put through in a session lasting about two hours. Classroom teachers are also present for any possible disciplinary and other problems that might arise.

When, and if, anything is found physically wrong with a child, the parents

are notified. It is recommended that they take the pupil to the family doctor, as the Belen Health Program involves only the examination and follow-up. When notes sent home are not acted upon within a reasonable time, the school nurse makes further inquiries. Welfare cases are referred to the Welfare Department for action. If, however, a parent financially able to have recommended corrective work done chooses to ignore the professional advice and refuses to act, there is little a public school system can do.

In 1954, school instruction for physically handicapped children was added to the Belen Health Program. This was made possible by Senate Bill No. 170 introduced during the 80th Session of Congress. A crippled child is defined as one "who by reason of physical disability is unable to attend regular classes." Such handicaps may result from rheumatic fever, infantile paralysis, accident or other causes. In addition to all other budgetary requirements of the state, this law provides state support to allow an additional teacher for each 5 to 15 crippled children within the legal school ages of 6 to 17. The law is not effective unless there is a minimum of five handicapped pupils.

The first problem faced by Belen Schools administration, when this new pragram was begun, was the lack of information about the number of children

requiring home instruction. Later in 1954 when the Physically Handicapped Children's program was officially initiated, a survey was set up that indicated the need of at least one special teacher and the possibility of two. Belen today has two full-time teachers working with this program. Individualized instructions were given to the 14 boys and girls lined up for participation in the first year of the program. The community reacted quickly to the appeals for information by the school board and superintendent, and within a few weeks after the beginning of the school year, the instructional program was in high gear.

In a community-wide, educational development of this type, which is the product of past efforts and trials in providing better health conditions for the growing younger generations, it is always necessary to evaluate present progress and to look ahead for improvement in the future. The school administration, members of the local medical society, P.T.A., Lions, Rotary, and other community organizations have been doing

just that.

Through the foresight of the Belen Schools and the local organizations, the inception of expanding the present medical program was born. In December, 1957, after a high percentage of suspicious cardiac abnormalities were found, a diagnostic and demonstration medical project was started for the control and prevention of streptococcal infections, rheumatic fever, rheumatic heart disease, and glomerulonephritis.

Objectives for the program were out-

lined as follows:

1. Demonstration of such a project to other New Mexico and Southwest communities.

2. Control and eradication of rheumatic fever, rheumatic heart disease, etc., from the school population.

3. Investigation of various newer techniques for the control of streptococcal infections.

4. Investigation of the epidemiology of rheumatic fever, rheumatic heart disease and glomerulonephritis in New Mexico.

After several local meetings with school board members, school personnel, local doctors and others, the basis for expanding the program was discussed and approved. Essentially five phases of

expansion were adopted:

1. Detection of streptococci infection by throat swab and culture. Children found to be harboring the organisms were referred to their family physician for immediate treatment to prevent the serious complications by these organisms such as rheumatic fever, and rheumatic heart disease.

2. Prevention of further damages of rheumatic fever and rheumatic heart disease. All school children in Belen have already been screened by chest X rays.

Those who were found to have abnormal cardiac changes were surprisingly higher than in other areas so far surveyed in New Mexico. These children were further examined in co-operation with the physicians in Belen in addition to electrocardiogram and other laboratory procedures. If they were diagnosed by their family physicians as having rheumatic fever and rheumatic heart disease, penicillin prevention program for minimizing further damages from these processes were instituted under the supervision of their family physician.
3. Early detection of leukemia.

4. Detection of nutritional anemia.

5. Tests for detection of tuberculosis and coccidioidomycosis, a special fungus disease known to be present in the Southwest.

Procedures Outlined

Procedures for the initiation of the different phases of the program were outlined and adopted. Materials needed for the program were discussed in detail. Again, through the efforts of the combined group, the general policies and procedures were approved and followed:

With parental consent, the nasopharynx of each child was swabbed and the content of the swab immediately inoculated on sheep blood agar.

From the point of controlling any infectious or metabolic disease, community-wise, it is more effective by examining the total population instead of only those who complain of the presence of symptoms.

Culture study is carried out on all family members of any student who may be found to be harboring the organism. This ensures a better eradication of the pathogenic organism from the environ-

This program is intended on a continuing basis. After the initial survey of the total school population and positive families is completed, further steps will include:

1. Daily inspection of all school children who present signs of upper respiratory infection and culture of nasopharynx of children manifesting signs of streptococcal infection.

2. Exclusion from school of all children found to be so infected until antibiotic therapy has been instituted or until a negative culture is obtained if

such therapy is refused.

Daily inspection and culture is necessary, since the time lag involved in monthly or semimonthly culture would allow rheumatic fever or other serious complications to develop in the interim. Exclusion of positive streptococci carriers is needed. It appears illogical to segregate children with such diseases as chickenpox, and to permit carriers of hemolytic streptococci to mingle with other children and cause more serious chronic complications.



BOARD PROGRESS IN CROMWELL

The Cromwell, Conn., board of education has established during its tenure a secondary school program, has organized a foreign language program in the elementary grades and has sponsored a long-range citizens survey of the district's educational program. Members of the board include, from left to right: (sitting) Dr. Arthur V. McDowell; Harriet Pierson, secretary; Salvatore D'Alfonso, chairman; Gertrude Carroll; Hinda Cole. Standing are William K. Buggle; E. Leonard Swanson; John L. Swingent, and W. Scribner Fellows. Superintendent in Cromwell is Simon H. Moore.

Selling Bonds

ROBERT R. DENNY

Administrative Assistant

Des Moines Independent Community School District,

Des Moines, Iowa

"Detailed planning and wise use of mass communication media were big factors in passage of the two measures in the school bond election in Des Moines," said Superintendent John H. Harris.

The \$5,900,000 school bond issue and 2½ mill schoolhouse levy will finance almost \$9,000,000 worth of new buildings in the next few years. This new school bond issue brings the total voted for new buildings since 1945 to about \$30,000,000. This was the fifth successful school bond election that has been held in the past 14 years.

held in the past 14 years.

Dr. Harris said, "we realized that a successful bond issue depended upon the voters having enough information on which to base a decision. Informed citizens will vote for school bonds — 9 out of 10 times." The campaign to inform the people of Des Moines involved use of radio, television, printed booklets, brochures and tags, a speakers bureau to address service and luncheon clubs, direct mailings and news releases to daily and weekly papers.

The detailed campaign to inform the public and to encourage a favorable vote is outlined below.

A 32-page brochure, "We Can't Stop Now," was drafted. This listed all 16 of the projects in detail.

One thousand copies of this pamphlet were litho-printed and circulated to prominent citizens. Because there was so much detailed information in this publication it was kept to a limited circulation of those persons who would be interested. Throughout the campaign citizens who showed an interest were mailed one of these booklets.

For wider distribution, 20,000 copies were printed of a six-page folder which condensed the main ideas of the 32-page booklet. These folders were given out at P.T.A. meetings, service clubs and luncheon meetings.

Use of Newspapers and School Papers

Releases were mailed to the six weekly newspapers, (neighborhood, labor and church publications). The daily newspapers gave widespread publicity to the Citizen's Committee report. Two favorable editorials were printed in the Des Moines Register and Tribune two weeks before election. On the Sunday prior to election a big spread was devoted to the school needs. The day before election, another lead story was devoted to the bond issue. On election day stories on the front page reminded people to vote.

The 12 junior and senior high school student newspapers carried news stories of school housing needs. Many families

were contacted by this means.

All of the 57 elementary schools in Des Moines sent out one or more letters and bulletins to their parents telling of the proposed building program. A special edition of 45,000 copies of the schools' "house organ," Des Moines News and Views, was sent to each home via the students one week before election. Several aerial shots in this paper helped parents see the mushrooming housing developments and the need for more classrooms.

On the day before election, 45,000 tags — VOTE IN THE SCHOOL BOND ELECTION, MAY 26 — were sent home with all the students.

Use of Radio and TV

In the week preceding election two 30-minute television programs were devoted to school bond proposals. One week before election, the assistant superintendent outlined the 16 building projects covered in the election. This program was carried on the school's TV station and made use of many pictures and slides of various areas of the city. Members of the board of education, citizens committee. labor council and PTA

council also gave endorsements on the TV program.

On the evening before election the superintendent appeared on the local commercial television station in a 30-minute news and interview program devoted to the bond issue.

Two other television stations used the bond election story in their news programs with accompanying films.

For three weeks prior to the election, series of spot announcements were mailed to five local radio stations. These announcements reached many thousands of homes.

Printed and Oral Means

The 138 third grade teachers were supplied with 400 copies of the lesson, "Getting A New School," which is a chapter in the Scott-Foresman social studies series. This lesson brought out the various steps to be taken in order to build a new school.

A speakers bureau was set up and letters were sent by the president of the board of education to about 40 service organizations. A check list and a stamped return envelope were enclosed. The list permitted each group to select a 5-10 minute talk, 20-25 or 30-45 minute presentation. They could also request a speaker from the administrative office or a member of the board of education.

Copies of the 32-page brochure were mailed to community leaders four weeks in advance of the election. Other persons who requested detailed information were mailed one of these booklets.

Retired teachers received the 6-page folders along with their pay checks. Copies of the folder and the 4-page newspaper describing the 16 projects were mailed to all doctors, dentists, lawyers as well as barber and beauty shops. In the accompanying letter was a request to add these items to their other periodicals in their waiting room.

Letters were sent to 126 ministers of local churches urging them to put an announcement of the school bond issue in their church bulletin on the Sunday preceding election.

Five days before election post cards were sent to the 16,235 persons who signed petitions requesting the school bond election. These cards thanked persons for signing petition and urged them to be sure and vote next Tuesday. These cards were signed by the endorsing groups: Parent-Teacher Association Council, Citizens Advisory Group, Polk County Labor Council, Chamber of Commerce, and the Board of Education.

The use of all media was rewarded in a successful school bond election. Much time and effort was spent in telling the voters of our school building needs in Des Moines. "Their response of 69% favorable votes was gratifying," said Dr. John Harris.

language laboratories

With the shift in emphasis from a written to a speaking approach to foreign language study, there arose a need for language laboratories. On the next few pages, you'll find (1) basic thoughts on the language laboratory, and (2) how one district is building a language laboratory.



Spensific Recording Industries

Basic Thoughts on the Language Laboratory

Installations* of mechanical and electronic equipment to facilitate language learning, generally known as language laboratories, came into use during and after the specialized language training programs of World War II. Their effectiveness in providing increased experience in hearing and speaking a foreign language is being widely recognized now that the international responsibilities of the United States have intensified the need for Americans to

*Excerpted from Bulletin 1959, No. 3, Foreign Language Laboratories in Schools and Colleges, Marjorie C. Johnston, Specialist for Foreign Languages, and Catherine C. Seerley, Research Assistant, Office of Education. The bulletin, 86 pages with paper cover, is available for 35 cents from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

communicate directly with many other peoples of the world.

How the Laboratory Developed

Although in its present form the language laboratory is a comparatively recent development, it would be a mistake to assume that it has no antecedents. For many years foreign language teachers have supplemented their classwork and have stimulated interest by the use of phonograph records and films. The incorporation of audio-visual materials into the main content of the course was not extensive, however, before World War II. Then the sudden need for people who could understand and speak foreign languages led to intensive lan-

guage instruction in the Army Specialized Training Program, the Civil Affairs Training Schools, and the Navy Schools of Military Government and Administration.

During the war years intensive programs of language and area studies for military personnel were conducted in 57 different colleges and universities, the teaching being done for the most part by the regular college language instructors aided by native drill masters in mimicry-memorization sessions. These programs made more extensive use of training aids, audio and visual, than was normal in civilian education, for it was necessary to audit radio broadcasts in foreign territory and to communicate

much vital information by telephone. Phonograph records, which were prepared to accompany the basic language texts, provided active drill rather than passive listening by leaving pauses on the record during which the student repeated the phrases.

Purpose of the Laboratory

The development of the language laboratory presupposes that learning to speak and understand the language is an important objective of modern foreign language study. Although variously expressed, two assumptions underlies all the statements relating to the laboratory's purpose: (1) that systematic listening-speaking (aural-oral) practice is indispensable in learning to speak a modern foreign language, and (2) that the conventional classroom does not provide adequately for such practice.

The basic purpose of the language laboratory, therefore, is to provide regular practice in listening to good models of the foreign speech and to provide a large amount of imitation and repetitive oral drill. Listening practice is intended to lead progressively toward the ability to understand the spoken language: that is, conversation at normal speed, newscasts, lectures, etc. Oral drill is aimed toward acquisition of the fluent speaking ability needed to express one's thoughts in sustained conversation with propunciation, intonation, and use of grammatical forms acceptable to the educated native speaker.

Courses of study and course outlines in modern foreign languages, almost without exception, state the primary objectives somewhat as follows: first, sequential progress toward the acquisition of the four language skills — aural understanding, speaking, reading, writing — and second, a deepening understanding of the foreign culture, of which the language is one element.

Through the years one of the great problems confronting modern language teachers has been the proper development of aural-oral skills. It may be noted, at least, that some of the obstacles which hindered achievement in the past are today much less formidable. Whereas previous generations of students in the United States felt little actual need to gain a high degree of proficiency in understanding and speaking a foreign language, and therefore were not disposed to spend the long hours of practice no essary to acquire these skills, today there is widespread awareness of the need and an awakened sense of urgency for doing so.

For several decades, too, in the high schools particularly, the meager time allotment for foreign languages made the attainment of the fourfold-skill objective impossible, so the greatest emphasis was given to reading. Recently more and more schools are providing an

earlier start and a planned sequence of study throughout the high school years. Besides strengthening the offerings in French, Spanish, and German, serious consideration is being given to the introduction of Russian, Chinese, Arabic, and additional languages now of importance to large numbers of Americans.

These and other trends reflecting the changing times are causing the whole language teaching profession to turn the searchlight upon itself and to redouble its efforts to give balanced attention to the several objectives of language study.

Obviously the use of audio tools would not be necessary if the students lived in the foreign environment and had unlimited access to native speakers of the language or if a tutor or drill master could work individually with each student throughout the study hour. Under usual classroom conditions, however, the use of discs or tapes increases both the quantity and the quality of the students' aural-oral experience in the language. Such practice, in effect, can extend the presence of the teacher or the native speaker almost indefinitely. In planning the most effective use of their time, students must distinguish sharply between learning about the language and learning the language.

Types and Organizations

There are basically two types of laboratory installations. The first comprises one or more centrally controlled recording and playback machines from which the sound is wired to each student position. If there are several machines, the student has a choice of channels to which he may listen. The second type contains in each booth a record-player controlled by the student himself.

The language laboratory has as many variations in organization as there are different conditions affecting the language program, such as the space available, size of the budget, number of languages taught, number of courses offered, number of students enrolled, and whether group or individual study or both may be preferred. Sometimes the organization is deliberately chosen as the type best suited to the language department's needs; in other cases the laboratory organization is but a temporary expedient or preliminary step in the development of the kind of complete laboratory envisioned.

Laboratories are organized according to one or more of the following plans, with wide ranges in size and amount of equipment.

1. The Lab-Classroom. The regular language classroom is equipped, with or without booths, so that audio-visual aids are accessible to students during the class hour or supervised study time. Each student position has a headset and individual volume control. The tape recorder, microphone, and phonograph are

located in front for the teacher's convenience. Sometimes a movie projector. with patch cord connection to the headsets, screen, and dark curtains are available for the showing of foreign language films. This self-contained electronic classroom serves for all kinds of language activity, avoids scheduling difficulties inherent in the high school program, and allows the teacher full scope in the integration of aural-oral-readingwriting work. In schools having all language rooms electronically equipped, audio materials may be used for part of the classwork each day. If there is only one such room, a particular class is scheduled to use the room on certain days and then it devotes the entire period to laboratory work.

2. The Listening Room. Located in the library or other available space, the listening room may be provided in addition to the practice laboratory or as a first step in establishing a full laboratory with recording facilities. If the listening room is in the library, students obtain tapes in the same way that they check out books, and by using earphones they listen without disturbing others in the reading room.

3. The Practice Laboratory. This is a separate room, not a classroom, which serves primarily as a place where students may carry out homework assignments, drill, review, take listening comprehension tests, prepare or record oral compositions, and pursue individual projects in using the spoken language. It may be used both by classes and by individuals.

4. The Mobile Laboratory. Large, specially equipped tables with the mecanical and electronic devices built in or mounted on them may be wheeled into the classroom or wherever needed. This arrangement avoids the inconvenience of moving classes from one room to another and is more efficient than carrying individual portable machines in schools where the equipment is shared by several groups.

5. The Drill Room. Rooms accommodating small groups and having seats without arms, so that reading and writing are eliminated, are equipped with a wide range loudspeaker fed from a central control room. From the control room, which may be located in another part of the building, are sent recorded materials, live voice, or radio programs. The drill rooms are used for viva voce group drills in pronunciation or substitution exercises, such as pattern practice from filmstrip drawings.

Whatever the plan of organization, it is important in locating the language laboratory to consider ventilation, light, temperature control, acoustics, freedom from noise and distractions, storage space, safety measures, and other physical features affecting the efficiency and morale of students and teachers.

How Portland Is Building A Language Lab

A. K. TRENHOLME

Director of Instructional Materials, Portland, Ore.

Language laboratories are the visible symbols of a change in the purposes of foreign language instruction in the United States. For several generations, the primary concern of American education in this field has been to create a reading, and if possible, a writing knowledge of foreign languages. The doctoral examinations, the emphasis on grammar, and the typical methods of instruction in the classroom all reflected with philosophy of a written approach to language.

The change in emphasis came as a result of two World Wars with their tremendous movement of Americans abroad and an aroused interest in foreign languages. After World War II, millions of Americans began to live abroad, and it was apparent that a need existed to train people to speak languages fluently. This need has always been apparent to Europeans with their close proximity to other nations, but it was not until the United States assumed its present position of world leadership that the necessity for extensive command of a second language became apparent to the country as a whole. The previous emphasis on reading knowledge did not meet the needs of living in foreign countries nor has it been sufficient for economic and political interchange.

Audio-Visual Equipment

Two general types of equipment and material seem to be necessary in the newer approach to language teaching, the auditory and the visual. The audio equipment consists of various types of play back and hearing devices which enable the student to listen to correctly spoken examples of the language being

studied and to repeat the words and phrases with a play back or instantaneous reply feature. The audio materials consist of tapes and recordings in the languages being studied.

The visual equipment consists of various kinds of projectors, and the materials are filmstrips, slides and movies. Attempts are now being made at Wayne and Purdue to produce courses using both visual and audio materials in an integrated presentation. Pictures, usually taken in the country concerned, are prepared in the various forms and tapes or recordings made to complement material. The students are then given an opportunity to associate objects, places and customs of the country concerned with the words used to describe them. This is substantially the method by which people learn a first language, and the results so far seem to indicate that it is a successful approach to second languages.

The method has a good many other values for students since it does a great deal to make the language course informative and lively. Dr. George Borglum makes the statement that he teaches French geography, history, economics and customs using the language as a medium. Dr. Elton Hocking has also prepared a number of films taken in foreign countries, and it is hoped that at an early date, all of these materials will be available to school systems. It should be emphasized that the language laboratory is not an adjunct to the present teaching methods, but rather represents part of a new approach to the whole problem of language teaching.

The Portland, Ore., schools have been interested in the language problem for some time, and experiments are being

carried on in the introduction of languages in the elementary schools and the improvement of instruction on all levels. A year ago, interest in the language laboratory approach became sufficient to warrant investigation, and the language supervisor and instructional materials director have been actively investigating the possibilities during the past year. Visits have been made to language laboratories and careful attention has been paid to those sections of national conventions dealing with this problem.

Particularly productive was a visit to the Detroit Schools both on the secondary and university levels and the material presented at the national convention of the Division of Audio-Visual Instruction in Seattle in April. A good deal of discussion was held about the various approaches, and it soon became apparent that experimentation would need to be carried on with various types of equipment and methods.

Two Approaches to Organization

Two general approaches to language laboratory organization are to be found: the one involving a large central laboratory with thirty or more stations to serve a whole school, and the other the provision of a smaller number of student language laboratory booths in the regular classrooms. If the first approach, that of a central language laboratory, is followed, provision for a teacher in charge and careful scheduling of whole or partial classes into the laboratory becomes necessary for adequate usage. The central laboratory plan has the advantage that if the space is not totally used, students may come to the laboratory during study periods and work at their own individual problems. The factor of the length of time during which secondary or elementary students can successfully maintain the high level of concentration necessary for language laboratory use enters into the scheduling of classes in the laboratory.

The situation in secondary schools is quite different from that in colleges and universities since the students in high school usually have a full schedule of classes and are assigned during the entire school day. This renders the free use of a laboratory a little more difficult and increases the problem of partial class usage of a language laboratory. The movement of classes during the regular periods is another factor to be considered in establishing a central high school laboratory.

The staffing of a central laboratory involves the placing of a full time language teacher or a reasonably well-trained teacher aide in the laboratory during the entire period of its use. If the laboratory is open for a longer time than the regular school day, it is probable that at least the partial services of two teach-

ers or teacher aides or a combination of the two will be necessary. The person in charge of a language laboratory should have a good working knowledge of the operation of the equipment as well as a catalog of the materials to be used in

the various language fields.

The second alternative involves the placing of a number of student stations in the back of the regular classroom and the organization of instruction so that part of the class can be working with the equipment while the teacher works in the front of the room with the other students. This plan was observed in the Detroit area and may be in use next year in Portland. This method of operation has a number of advantages as compared to the central laboratory, but is much newer and may prove to have disadvantages. The teacher is much closer to the students since work with the speaking and listening devices is part of the regular classroom instruction, but this method does involve reorganization of class time.

The factor of the length of time which students can successfully concentrate can be more readily ascertained under the teacher's direction. Supervision and more flexibility of time scheduling is achievable when the equipment is in the regular classroom. On the other hand, it is necessary to equip several rooms in the building with a consequent increase in the cost of the console which controls the student listening booths.

In the Portland Schools, considerable success has been achieved in several programs using equipment in this fashion. The effective reading classes particularly have had a portion of the class work at the accelerators while the rest of the class works with the teacher, and the method has proven quite successful.

A decision as to which of the two general types of facilities will be provided is one of the basic questions in regard to the establishment of a language laboratory.

Tape Recorders

After a decision has been reached as to the central laboratories or the room laboratories, the second major question is whether tape recorders are necessary at all of the student stations. A number of the workers in this field, particularly at the university and college level, feel that this is a necessary feature at every student station. Wayne University, however, has departed from this feature and is now using instantaneous audio feed back systems in the student booths in place of tape recorders. The method of operation of the all tape recorder booths is the placing of the tape or recording into the student's earphones and the recording of the student's responses on the tape recorder in the booth. At the conclusion of the lesson or portion of the lesson, the student

plays back the tape through his earphones hearing both his own voice and that of the instructor. This necessitates proceeding through the lesson and then listening to the completed lesson or portion covered.

The question of the necessity of an all tape recorder laboratory in secondary schools is one in which a good deal more information is needed. The writer's observation of the situation in the high schools in the Detroit area seems to indicate considerable success in laboratories not using tape recorders in every booth. Experimentation is being carried on at both the university and high school levels, and at least one university is now discarding the tape recorder plan for the instantaneous audio feed back system. The factor of the attention span in high school in connection with the longer period of time which the tape recording process involves also needs further exploration.

The other system, that of the instantaneous audio feed back, consists of the student's listening to the tape of the lesson and replying with the appropriate word or repeating the words or sentences given in the lesson at the appropriate moments. The student's voice proceeds through the microphone and the amplifier and comes back through the headphones so that the student hears his own voice with the same qualities that are to be found on the tape to which he was listening. This method permits instantaneous hearing of the reply without the process of tape recording. The tape recording booths may also have this feature and the tape recorder as well. It is claimed that most of the benefit to the student is obtained by hearing his reply at the appropriate time in the lesson, and that there is less value to listening to the whole recorded lesson. A considerable saving in time is possible using the instantaneous audio feed back since the lesson may be repeated during the time that the tape recording of the student's voice and the lesson would be heard.

The cost of installation of a language laboratory is markedly reduced using the instantaneous audio feed back system since tape recorders of the quality necessary for language instruction are costly. Considerable experimentation will be necessary before any weight of evidence will be apparent in favor of one of these types of equipment.

The Portland Public Schools, on the basis of the evidence available, have decided to experiment with the placement of student stations in the rear of language classrooms. The experiences with other programs, such as the Ferndale High School and the seven high schools participating in the Detroit study, have indicated that this method of instruction is feasible and should be productive of

excellent results. The experience of these

schools also points toward classroom laboratories rather than large central

This fall Portland will have in operation three installations: one in a French room, another in a German room, and a third in a Russian room.

Stations Are Movable Booths

It has been found that a large classroom can be equipped with ten or fifteen students stations without unduly crowding the other students or altering the classroom radically. The student stations comprising the language laboratory will be built as movable booths to facilitate change after experience has shown what problems may arise in connection with the use of the equipment. Lacking any considerable weight of evidence, the decision was made to begin with fifteen student stations which was felt to be a maximum number necessary for one classroom. Ten stations may prove adequate to meet the needs of a normalsized class.

It was also decided to attempt a compromise between the two major types of student stations with the greater proportion equipped with instantaneous audio feed back systems. Of the 15 student stations, one will be equipped with a single track recorder, one with a dual track recorder and 13 with the instantaneous audio feed backs. An attempt will also be made to purchase various brands of equipment within these categories in order to experiment with equipment now currently available.

The teachers concerned with this experiment and a number of others are now attending the modern language institutes being held in various parts of the country to become familiar with

the newer techniques.

A provision has been made for the purchase of tapes so that the teachers may prepare materials, and a number of commercially prepared tapes and recordings have been obtained. Film and filmstrip materials are being purchased, and it is anticipated that during the coming year prepared material will be purchased in this field. Teachers have evinced an interest in the materials now being prepared at Purdue and the materials available at Wayne, and it may well be that the Portland Schools will purchase one or both of these sets of materials comprising film, filmstrips and tapes designed to offer materials for a beginning language course.

It is clear that public schools working in the language laboratory field will be pioneering, and that experimentation using all of the various methods should be carried on in order to discover what is most suitable for secondary and elementary school use. At the present time. the Portland Schools will attempt to use the laboratories only in the secondary



Woodland Junior High School

DORA MARY MACDONALD

Director of Public Relations, Board of Education, Duluth, Minn.

In the past year, citizens of Duluth, Minn., have dedicated the opening of the St. Lawrence Seaway and of a new junior high school. The Woodland school is the last of six new school buildings, along with modernization of and additions to 12 other schools, financed by two bond issues totaling \$9,000,000 and an increase in tax limitation. The first issue, passed in 1949, of \$3,000,000 was retired in 1956. Alvin T. Stolen is superintendent of the school system.

The cost of construction for the Woodland junior high school is approximately \$1,668,460. The architects are Melander, Fugelso & Associates, and the general contractors, J. D. Harrold Company.

The new building is not "just another school"; neither is it one to raise the nationally publicized question "Must our schools be palaces?" It is a building designed for learning, for modern methods of teaching, for the community, and for the special terrain. It easily accom-

modates an enrollment of 800 pupils.

Even the exterior main entrance is exciting with color, as a portico of dark timbers is accented with splashes of what is generally termed Chinese red. In this area, where Leif Erickson is acclaimed the discoverer of America (Columbus just had a better press agent), the workmen call it Swedish red — and they have the labels on paint cans to prove it.

The lobby has cove lighting, with a repetition of the red, and an interesting wall facing the entrance. Designed by John Peck, architect, this wall from floor to ceiling is made up of cream, tan, blue and brown tiles. The same design is repeated in the corridor back of the auditorium.

Academic Wing

To the right, stretching at right angles from the lobby is the academic wing, the only part of the building with two floors. There are five classrooms on

the first floor, which ends against a hill, and 20 classrooms on the second floor, which has an entrance on an upper level of ground. Inside stairways have tiled walls for economy in maintenance and iron grillwork painted Swedish red.

The square classrooms are nine feet high. Two pastel colors are used in each room, with the bulletin board wall a shade darker than the opposite wall. The engineer says that the only materials that can burn are the paint and the doors; the latter are birch with a driftwood stain.

Each room has an electronic controller for ventilating units, bells, lighting, and electric motors. An electronics expert can understand the receiver of coded messages on different frequencies, operated from the engineer's control room; it is enough for the ordinary taxpayer to understand that this device saves on the cost of electric wiring and is more efficient than other installations.

The foods laboratory inspires one to

Steel window walls saved \$95,000



Architect: Warren H. Ashley, West Hartford, Conn. General Contractor: Tornabene Brothers Co., Newton Upper Falls, Mass. Panel Contractor: The State Glass Co., Hartford, Conn. Window Fabricator: Hope's Windows, Inc., Jamestown, New York

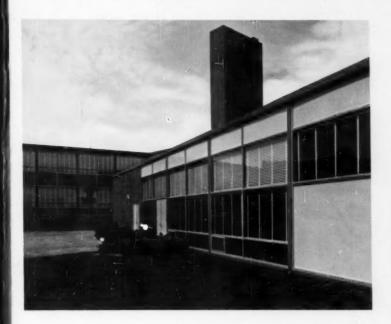






If you're interested in bright, efficient school design, you would never forget a stroll through the streets and walks of the West Springfield Senior High School in Massachusetts. It's one of the most attractive and best equipped campuses in the country. And if you met any school board members, or the architect, or the contractor, you might hear how the colorful steel window walls saved \$95,000.

on this high school campus



The steel window walls are only one inch thick. They're strong, weathertight, and exceptionally light—so light that the builder was able to construct lighter frames and foundations... and save tons of steel and concrete. The walls were factory-assembled into complete floor-to-ceiling units that were delivered to the building site ready to be set in place. Erection was completed in days instead of months. The savings in labor costs and in building materials amounted to \$95,000.

The steel window walls saved time and money and space. Conventional walls would have been about twelve times thicker—at the sacrifice of floor space. Because steel window walls are so thin, they allowed 3½ per cent more classroom area.

This year, the West Springfield school is five years old, but it looks as bright and clean as the day it was opened. It will stay that way for generations because the porcelain-enameled steel wall panels are practically maintenance-free. They will never have to be painted or refinished. They never fade or peel. An occasional wash—or even rainfall—keeps them mint-clean.

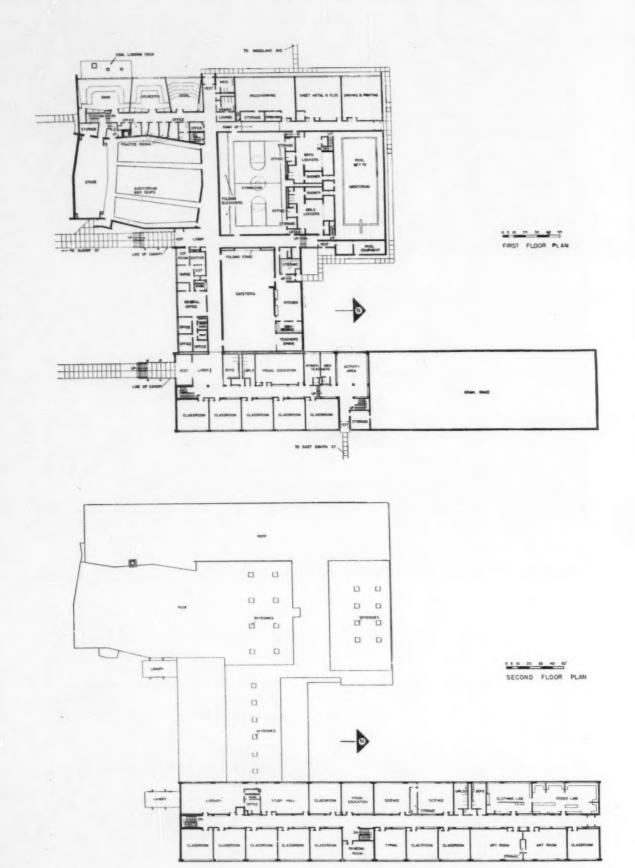
If you would like to have more information about steel window walls, write to United States Steel, 525 William Penn Place, Pittsburgh 30, Pa.

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Each art room is equipped with work benches, an imitation slate work space for working with pottery, and stainless steel sinks.



On one side of the clothing laboratory are ironing boards for In the food laboratory there are six cooking units, electric and pressing and on the other side, sewing machines.



gas, each in a different price range.



The study hall and library have small high windows along one wall which provide an atmosphere conducive to study.



This is one of three industrial arts classrooms for woodworking, sheet metal, electricity, printing, and mechanical drawing.

tackle something besides frozen foods. It's pink — walls and cabinets and formica tops all pink, except the luxury unit, in which cupboards are natural wood. There are six units, electric and gas, each in a different price range. The most expensive one is equipped with a wall oven, deep freezer, and automatic washing machine and drier. And here's something — a drying closet with ultraviolet rays to sterilize dish towels! Each pupil has an opportunity to work in each unit.

A feature of the clothing laboratory is a 42-inch high dividing wall with electric outlets. On one side are ironing boards for pressing, and on the other, the various types of sewing machines and cupboards with tote drawers. There is a tricky dressing room with a swivel wall which has a cupboard on one side and a full-length mirror on the other.

The two art rooms are separated by a storage room and wide sliding doors. The decorative colors are a controlled riot of garnet red, gold yellow, and turquoise blue. Each room is equipped with work benches, an imitation slate work space for working with pottery and stainless steel sinks. A kiln is in one room.

The study hall, adjacent to the library, and the library itself have small high windows along one wall, in contrast to the wall of picture windows installed in the school opened the previous year. It is rumored that teachers think this installation of windows is more conducive to study than the large thermopane windows. One end of the library, however, has a window wall. The library is equipped with a work-room.

Folding gates can shut off the academic wing from the rest of the building during night activities.

Administrative Suite

An administrative suite and cafeteria are on either side of a corridor leading left from the main lobby to connect with the second wing of the building. Glass display cabinets form the corridor wall of the cafeteria.

The administrative suite includes the main office, offices for the principal and guidance counselor, a conference room, a three-room medical suite, and a room for the public address console.

The all-electric kitchen has stainless steel equipment. Trucks can unload at the storeroom door immediately off the kitchen. In the cafeteria, tables are arranged for small groups of pupils.

A secondary entrance leads to a wing housing the auditorium, with three music rooms and five small practice rooms next to it, gymnasium, swimming pool, locker rooms, and three industrial arts classrooms for woodworking, sheet metal, electricity, printing, and mechanical drawing.

The emphasis on a community building is seen in the provision of a ladies' lounge and men's smoker across from the auditorium. Toilet rooms connected with these are used by pupils.

The gymnasium has folding bleachers mounted on one wall. Skydomes provide natural lighting. The white-tiled swimming pool is regulation size—28 feet wide and 75 feet long, marked off into four lanes. Back of the pool is the machinery for operating it, for filtering, heating, and chlorinating the water and for testing it three or four times a day for alkalinity, residual chlorine and cleanliness; a maze of pipes extends under the pool. The water continuously changes 24 hours a day.



The white-tiled swimming pool is regulation size — 28 feet wide and 75 feet long. The water continuously changes 24 hours a day.

Principles of School Construction

HERBERT S. MITCHELL

Retired Business Manager, San Bernardino, Calif., Schools

A school construction program should be planned to gain the objectives of adequate and satisfactory facilities; reduction of time and expense between conception and bidding; economy of construction costs; and reasonable operation and maintenance expense. These objectives may be reached by various routes. The most desirable routes for a particular school district will depend upon many local conditions. This article is based on the program of a school district that has a current average daily attendance of 27,000 and that is growing at a rate requiring about 60 new classrooms each year.

Adequate and Satisfactory Facilities

a) Gaining the objective of adequate and satisfactory facilities depends largely upon the design and planning policies and procedures. If one uses the past as a guide for present and future action, it will be found that over the years there has been a substantial evolution of the manner in which school design and planning has been done. Forty years ago when classroom spaces were substantially alike, the architect assumed full responsibility. Twenty-five years ago when rooms with special facilities were accepted as being necessary, the superintendent, and sometimes the instructional department heads, were consulted by the architect in an effort to provide more adequate and satisfactory facilities. As the educational program has become more complex and specialized, the need for more suggestions and advice from persons actually using the facilities has become recognized as being essential to sound planning. Today it is normal practice for the instructional staff to assume a great deal of responsibility in connection with the educational adequacy of school facilities. Teacher committees are now the rule rather than the exception.

b) If teacher committees are to be used, and if the school district is growing and expected to continue to grow for some time, it seems unwise to appoint a new committee every time a new facility is to be planned. A continuing committee, that is a committee whose members terms of service are staggered, seems a logical answer to this problem. The names of the persons on the various committees should be publicized and all employees should be encouraged to make suggestions for committee consideration. Everyone should know where to go for a chance to be heard on any suggestion for improvement of school building facilities.



"Gaining the objective of adequate and satisfactory facilities," as evident in the Jefferson Hunt Elementary School in San Bernardino, California, "depends largely upon the design and planning policies and procedures."



"Economical construction is the product of good basic design, proper selection of materials, completeness of drawings and specifications, and competitive bidding."

c) Planning committees should realize the importance of the function they perform. They should accept the responsibility to be on the alert to learn of any new changes or developments in their respective facilities. They should be given an opportunity to know, not only what is being done in their own school district, but also in neighboring school districts. Since substantial or radical changes are few, a committee assignment does not place an unusual burden upon any employee.

d) The use of a continuing committee plan makes it easier for the school administration to have the committee understand and appreciate its duties and reports of the committees will become standardized and uniform. The committee will understand and appreciate the over-all financial limitations of the school district. They will learn and understand the practical problems of converting their recommendations into final drawings.

e) Regardless of the committee plan or organization, they should report to a central administrative committee which will serve as a control check between the committee organization and the architect. It will be the function of this committee to maintain a balance or proper proportion of facilities for the various educational departments.

f) What has been said about committee duties and responsibilities pertaining to the planning for school construction is largely applicable to the establishment of equipment requirements. These committees should pre-

pare equipment requirements in detail and establish minimum specifications for the various items. Such lists will reduce substantially the problems of purchasing for new rooms and for bringing existing rooms up to current standards.

g) If the planning policies and procedures of the school district are well established, they may be publicized in the community and become an asset to the public relations program of the school district. Community acceptance is important. There is no substitute for it. The belief that an effort has been made to keep it informed is a long step toward acceptance.

2. Reducing Time Between Conception and Bidding

a) There is never enough time between the determination of where and what facilities will be required and the time when they should be occupied. The fact that a certain amount of time is required between the start and finish of a construction job is fairly well established and understood. The time between such determination and the taking of bids so that construction may begin is not generally understood and accepted. For this reason the work of planning advisory committees; preparation of the drawings; and the writing of specifications is performed under pressure with resultant mistakes in judgment, errors, and omissions.

b) The savings of time inherent in the plan of using continuing planning committees has already been indicated. A natural consequence of the use of such committees is the development of

standard rooms or facilities. When a new facility is decided upon little time is lost, therefore, in passing on the educational requirements to the architect.

c) If it is the policy of the district to standardize on its building facilities, the preparation of drawings "from scratch" would be a waste of both time and money. The employment of a staff architect to prepare complete and accurate drawings of the various rooms may be done. Then ozalid transparencies may be turned over to the project architect along with site plans, etc., so that only a few additional sheets of drawings are required to adapt the standard drawings to site conditions.

d) Under such a program, the various public agencies whose approval must be received require only a minimum of time for processing a project through their plan-checking departments after the first approval has been given. Usually "over the counter" approval involving only a few hours is required rather than a few weeks.

e) The use of standard drawings does not penalize the project architect financially, however, it does reduce substantially the fee which he must charge. If is is a small project, the saving to the architect in drafting expense is very substantial by comparison with "from scratch drawings." Under this plan, the architect will receive his normal supervision of construction fee.

f) It should be realized that standard drawings as referred to here are not drawings that are static and therefore soon become obsolete. This is because they are constantly being revised and are always as up-to-date as possible.

g) If it is the policy of the district to use standard drawings, the community will have a better understanding of bond issue requirements. Voters and taxpayers may see actual rooms and buildings that are scheduled for construction under a building bond program. They may visualize the extent or absence thereof of frills and embellishments in the proposed buildings. The use of standard drawings will increase the understanding of plans and specifications by contractors and building inspectors. If they are not used, the contractor, the inspector, and the architect as well, must study and become familiar with the drawings and specifications for each new project.

3. Economy of Construction Costs

a) Economical construction is the product of good basic design, proper selection of materials, completeness of drawings and specifications, and competitive bidding.

b) The architects who ordinarily serve in that capacity on district construction projects should be organized into a committee to give advice in the

(Concluded on page 56)

Watch That Too Low Bid!

LOUIS N. BALLUFF

Louis N. Balluff Associates, Architects-Engineers, Chicago, III.

When should a school board suspect and challenge the low bid, or when should the school district's architect recommend that it be investigated thoroughly before a choice is made? What are some of the indications that may warn school administrators to be wary, and against what essential services may

they check the bid?

When these explorations have been made and satisfactory answers obtained, then the school board may feel confident in either accepting the bid, or rejecting the bid and beginning over again in those states where the law requires it. Or the board may consider the second lowest bidder where this may be done.

When construction bids come in they generally divide themselves into groupings of high, medium, and low. Since building contracts are normally awarded on the basis of the low bid under the competitive system, those contractors, other than the lowest, or at least in the lowest grouping, have priced them-

selves out of the running.

The reasons for contractors bidding high are many. Some are indifferent. Others may be adding too much for overhead operation, or expect too large a profit from a particular job. If their services are highly in demand, and they are already loaded with profitable work. their bids may reflect these situations. In other words, they may be bidding merely to keep their names before school boards and school administrators, for advertising, prestige, and future business values. For these and other reasons, these high bids, way out of line, are usually of negligible value in themselves as points of comparisons, costwise.

Those contractors whose bids are in the medium group are closer to what the job should go for, and their bids may have some validity of cost comparison checks against the low bid.

Low Bid Group

But it is the contractors in the low

bid group who will interest the school administrators responsible for the success of the school building program. For this group, pricewise, offers an excellent basis of comparison. If there is not too much discrepancy among the bidders in this low bid group, this should be reas-suring to school administrators who must accept or reject the low bidder. But when the case arises wherein the low bidder is much lower than all other bidders, caution and investigation may be in order.

For any bid that is unreasonably out of line with all the others is suspect and should be checked thoroughly before the award is made. First, take the average for high, medium and low levels and see how the suspiciously low bid compares. If it is far below the average and considerably under the next lowest bid then begin questioning whether essential services have been curtailed and check the contractor's financial record and reputation very carefully. It is not necessarily true that the bid is unrealistic, but there is a good chance that it may be. Accepting an unrealistic bid may cost the school district more in the long run than moving up to higher cost estimates that are entirely dependable where that is permitted, or in throwing out all the bids and starting over when that is required.

For this is what happens very often in accepting that too low bid. It is unrealistic to such an extent that the building program bogs down. This can put school administrators in an embarrassing position and leave them with an uncompleted building development program that the bonding company must take over. Even though no loss of money may be involved, another contractor must be found to finish the deal. At best, this is an aggravating situation for all concerned. One that spells serious delays. By all means avoid it if you

When the contractor is bidding un-

reasonably low, he may be entirely responsible and reliable and keep his word. In which case, you are getting a bargain. It may be that the contractor has a considerable slack in his business at the time, and wants to keep his organization intact and working, so he will bid as low as he can. He may be willing to sacrifice every bit of profit. That is all right (from the school board's viewpoint) if in so doing, his financial loss on the job won't cause him to pinch services, quality and other essentials in order to meet his own commitments. When the financial squeeze comes, you may depend that the building program will suffer.

This too-low-bid contractor may be simply inexperienced. He may be taking bids from sub-contractors that are too low, based not on particular specifications for the job, but on other standards. It is possible, of course, that the contractor might be making an honest mistake, or that he is too optimistic in bidding the job. Check these possibilities against his experience and the experience others have had with him.

A good check on the too-low-bidder is to go over the list of recent jobs he has taken. See how he has stood on this bidding. If he's consistently too low, beware. He may be burdened with unprofitable work that somewhere along the way has to catch up. This point may be reached on your job. It's the old story of robbing Peter to pay Paul on these deals, the kiting, pyramiding, etc. behind most unintentional falls.

Check Financial Rating

Be certain to check thoroughly on the contractor's financial rating. Make this more than routine. If all his jobs of recent date are based on too low a figure, be so thorough as to get current bank balances and insist on financial statements that you know can be trusted.

The logical thing to assume is that

the too low bidder is cutting corners somewhere in essential places where it's bound to hurt the building development program. Make sure that the cut is not on vitally needed services, such as field supervision to direct the work and workmen. Ask the contractor: Will you have a competent representative on the job at all times to direct and plan for the trades?

Also make sure that the contractor will have the proper amount and kinds of construction equipment that will be needed.

It is possible that the too-low-bidder is depending too much on his abilities to drive a bargain with suppliers. For that reason, if he is awarded the job, he may spend too much time shopping around for materials, and not enough in supervising the work. Also this shopping around very likely will cause delays in delivery of materials and prevent the job from being completed on schedule.

Although many think that the toolow-bidder will be able to substitute cheaper materials, that is rarely so. For it is easy to catch substitution of cheaper materials. However, there are exceptions to this. For example, where the architect details certain typical metal sections, the too-low-bidder might easily buy from a supplier, sections of second quality. When this happens with window walls, etc., they often arrive on the job of such poor workmanship standard, they won't fit together.

The too-low-bidder may do his more profitable jobs first, leaving yours until last, or until he gets around to scheduling it at his convenience, not yours. Certainly, you won't be able to expect much personal service from the too-low-bidding contractor.

Building is so complex and detailed today, that it requires an expert to investigate the suspect bid, and either reject it or satisfy everyone that it may be accepted. The school board and administrators should depend on the architect and accept his recommendations. It is well to remember that when the contractor bogs down, the architect's hands are tied, the work suffers and there is the type of difficulty and delay that quickly takes all the economy out of the lowest bid price.

So in the case of the too-low-bidder, question his low bid not only on the basis of his ability to perform, but also his willingness to perform after he gets the contract. It is best to be sure that the too-low-bidder is being fair to himself and asking enough to do the job as it should be done. For he cannot be fair to the school building development program without this basic essential fairness to himself. Cheapness is seldom an economy in school building matters though the temptation to hope that it will be is always there.

Legislatures rule that -

School Boards Can Abolish Secret Societies

FRANK NANIA

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Without exception, the courts have upheld the right of state legislatures to enact laws prohibiting fraternities and sororities and other secret societies in the public schools and to authorize or require boards of education to take appropriate action against pupils belonging to such organizations.¹

Boards of education in states having such statutory provisions have been quick to enforce the law. In the states where such legislation has not been enacted, school boards have not always been as quick to take action against secret societies, because of deep feelings of insecurity concerning their legal right to abolish such organizations. There is, however, no sound basis for this fear. Sufficient legal precedent has been es-

tablished in case law to impart to school boards knowledge of their right to take positive action against secret societies. It has been held in a number of cases, in the absence of specific legislation directed against secret societies, that local school boards have the power to take action against these groups under their authority to make such reasonable rules as are necessary for the well-being of the school.

The first case that dealt directly with the right of a school board to abolish secret societies (in the absence of expressed statutory authorization) was, Wayland v. Board of Education of Seattle, 86 Pac. 642 (Wash. 1910). The board of education passed a ruling that boys belonging to fraternities would be denied the privilege of participation in extracurricular activities. A father stated that his son, George Wayland, and other students were under parental control when their fraternity met outside the school house, in the parent's home, with parental consent. He also contended that, "A high class literary program was carried out." Therefore, the

Isgrig v. Srygley, 197 S.W. (2d) 39 (Ark. 1946);
Salan Fraternity v. Board of Public Instruction for
Dade County, 22 So. (2d) 892 (Fla. 1945); Sutton
v. Board of Education of Springfield, 138 N.E. 131
(III. 1923); Lee v. Hofman, 166 N.W. 565 (Iowa
1918); Hughes v. Caddo Parish School Board, 57
F. Suppl. 508 (La. 1944); Steel v. Sexton, 234
N.W. 436 (Mich. 1931); Burkitt v. School Divict
No. 2, Multnomah County, 246 Pac. (2d) 566 (Ore.
1952); Wilson v. Abilene Independent School District,
190 S.W. 406 (Texas 1945).

school had no right to exclude these students from extracurricular activities for being members. The court ruled to the contrary since it was clearly demonstrated that, "A general spirit of insubordination against lawful school authority," had developed due to the activities of this fraternity, partly through articles appearing in the fraternity newspaper. Furthermore, it was felt that the loyalty which the members of the fraternity displayed to the national office of the organization was causing these students to consider their obligation to it greater than to the school.

Denied Use of School Name

The case of Wilson v. Board of Education of Chicago, 84 N.E. 697 (III. 1908), is also in point. The board of education adopted a rule that denied the fraternities the privilege of meeting in school buildings, denied them public recognition, and forbade them to use the school name. Members were not permitted to represent the school in literary or athletic contests or in any public capacity. Action was brought to enjoin the enforcement of the rule. It was alleged that the rule violated the pupils' natural rights, was an unlawful discrimination, and an arbitrary exercise of power on the part of the board. The court ruled that the school board had acted within the scope of its authority and that the pupils were not denied any rights. The court said in part:

The power of the board of education to control and manage the schools and to adopt rules and regulations necessary for that purpose is ample and full. The rules and by-laws necessary to the proper conduct and management of the school are, and must necessarily be, left to the discretion of the board, and its acts will not be interfered with nor set aside by the court, unless there is clear abuse of the power and discretion conferred. Acting reasonably within the powers conferred, it is the province of the board of education to determine what things are detrimental to the successful management, good order, and discipline of the schools and the rules required to produce these conditions. It was the judgment of the superintendent of schools of Chicago, as well as of the board of education, that membership in secret societies. known as Greek letter fraternities or sororities, was detrimental to the best interests of the schools. Whether this judgment was sound and well founded is not subject to review by the courts. The only question for determination is whether the rule adonted to prevent or remedy the supposed evil was a reasonable exercise of the nower and discretion of the board. .

Assuming, as we must, that the adoption of the rule was not an abuse of power or discretion conferred by law upon the board, the court can not, and should not, interfere with its enforcement. Puoils attending the schools may decide for themselves whether they prefer membership in the secret societies with the disqualification from representing their school in literary or athletic

contests or other public capacities, or whether they prefer these latter privileges to membership in said societies. It is for the board of education, within the reasonable exercise of its power and discretion, to say what is best for the successful management and conduct of the schools, and not for the courts.

This case was followed in Favorite v. Board of Education of Chicago, 85 N.E. (Ill. 1908), with a per curiam decision.

The court, in another case, Antell v. Stokes, 191 N.E. 407 (Mass. 1934), upheld the right of the school board to expel pupils belonging to fraternities. The court said: "This is not an invasion of the domain reserved exclusively to home and family. Formal associations of pupils in connection with a public school possesses possibilities of genuine harm to the reputation of the school and to the studious habits and personal character of the members." The court felt that these factors intimately concerned the general welfare in connection with public schools. "They properly may be regulated by rules adopted pursuant to legislative sanction."

Pupils Sign Pledge

The most recent case to come before the courts, Coggins et al. v. Board of Education of Durham, 28 S.E. (2d) 527 (N. C. 1944), upheld the right of

a school board to adopt rules banning secret societies. Each pupil was required to sign a pledge that he or she was not a member of any secret society, nor would become a member, nor contribute funds or participate in the activities of any secret society. The board notified parents that failure of a pupil to sign the pledge would result in exclusion from extracurricular activities. A group of pupils brought action to restrain the enforcement of the rule. The court, in upholding the action taken by the board, reviewed the powers of school boards and held that this rule was within the board's authority to regulate the conduct of pupils. Members of the banned societies were not denied instruction nor participation in any of the required work of the school. They were simply given the option of membership in fraternities or participation in extracurricular activities.

It was held, however, in Wright v. Board of Education of St. Louis, 246 S.W. 43 (Mo. 1922) that a rule of the board of education prohibiting fraternity members from representing the school in any capacity or participating in graduation exercises was unreasonable. The court held the rule invalid since, broadly interpreted, it would prohibit pupils from participating in activities outside school hours and at their homes, unless with the approval of the school board. The court held that the authority of the board ceases when the pupil reaches his home, unless his acts affect the conduct and discipline of the school. The court felt that it had not been clearly demonstrated that fraternity membership was detrimental to the operation and control of the school.

Fraternities Demoralizing

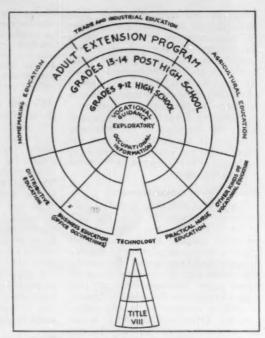
A dissenting judge was satisfied that ample proof had been shown that fraternity membership was demoralizing: members were lower in scholarship and constituted greater disciplinary problems; nonmembers became discouraged and even left school. He contended that the penalty did not deny any pupil a substantial right guaranteed by the Constitution and that the rule was not unreasonable or oppressive but, on the contrary, was made with the best interest of the school and the greater body of pupils in mind.

In conclusion, where it can be clearly demonstrated that membership in secret societies operates against the best interest of the school, in the absence of statutory provisions, the board of education may abolish secret societies. Pupils refusing to sever their connection with such organizations can be denied certain privileges, suspended, or expelled. The school board may regulate or eliminate as it sees fit; the educational welfare of the pupils is the paramount considera-

WORD FROM WASHINGTON

Vocational Education Moves Ahead

ELAINE EXTON



The Area Vocational Education Program
Evolving Concepts 1960–1965

Vocational education is growing in stature. Not only have the older federally-aided programs — vocational agriculture, home economics, trades and industry, and distributive occupations — demonstrated their vitality by steadily gaining in enrollments, but in the past three years funds have been authorized to provide extended training for practical nursing (1956) and to establish programs for the fishery trades (1956), and skilled technicians (1958).

Class enrollments in all these fields will reach new heights in 1959 according to preliminary figures which foretell a peak exceeding last year's total of 3.629.339 students.

The extension of these educational opportunities has been accompanied by a corresponding increase in the amount of public money—federal, state, and local—spent for vocational education.

State expenditures for this purpose have risen almost steadily since the inception of the Smith-Hughes program in 1918 when they totaled \$2,206,634 and the federal share was \$832,427, or \$2.65 of state money for every federal dollar. By fiscal 1958, the latest year for which this information is obtainable, the states' participation (\$171.014,910) had increased to \$4.42 of every dollar furnished by the Federal Government (\$38,777,172).

A record \$47,840,414 appropriation

has been approved by Congress for vocational education for the 1960 fiscal year. This includes an increase over fiscal 1959 of slightly more than \$3 million for the Title VIII area vocational education programs of the National Defense Education Act. The total is slightly more than an 85 per cent increase above the 1953 federal outlay of \$25,811,591.

Congressional Interest

This demonstration of Congressional support is particularly significant in view of the fact that President Eisen-hower in 1958 spurred on by a Joint Federal-State Action Committee Report proposed turning complete financial responsibility for the older vocational education programs over to the states beginning in 1960.

This year's Budget Message tersely states: "it is anticipated that no funds will be required in the 1961 budget for these programs, should the Congress accept as practical the recommendations of the Joint Federal-State Action Committee that the states assume this function entirely."

Actually this suggestion see. as to be losing ground on several fronts. Successor bills to H.R. 12,524 of the 85th Congress whose purpose was to repeal existing federal vocational education laws so as to accomplish the proposed

transfer were not re-introduced during the 1st session of the 86th Congress.

The present Congress, moreover, adopted legislation (Public Law 86-75) which repeals the federal tax on local telephone service whose partial relinquishment to the states to provide increased revenue in lieu of federal grantsin-aid for vocational education (but not earmarked for this purpose) was a feature of the Joint Federal-State Action Committee's proposal.

The Area Education Program

In this banner year for vocational education the most noticeable strides have been in the Area Vocational Program authorized under Title VIII of the National Defense Education Act of 1958 which President Eisenhower signed into law on September 2 of last year.

Forty-eight states, the District of Columbia, and Puerto Rico are now participating in this activity. To date \$10,750,000 has been appropriated to the states for Title VIII including a starter appropriation of \$3,750,000 for the fiscal year ending June 30, 1959. The first payment of funds to states has already been made for the fiscal year 1960.

One explanation of the quick response of the states to this activity is that the area vocational education concept is not entirely new. Since the passage of the Smith-Hughes Act of 1917 the area approach has taken root in one form or

another in several states.

For example, in Connecticut stateoperated schools have been in existence for many years. County or area vocational schools have prospered in Kentucky, Louisiana, New Jersey, North Carolina, Alabama, and Georgia. Other states that have established area vocational schools largely for youth beyond high school age include New York with its technical institutes and California with its program of two-year vocationaltechnical junior colleges

Recognizing that Title VIII of the National Defense Education Act is only a small segment of the total area vocational education concept, many vocational educators believe it can provide a stimulus that will lead to the spread of the area pattern to other educational

fields and services.

They consider this would be a desirable outcome because "area school programs at the high school, post high school, and adult extension levels are generally more flexible as a result of having a broader administrative base and therefore can reach more students, offer a wider range of courses, and meet unusual requests for specific short units of instruction with greater ease than would be possible in most school district situations.'

Pointing out that effective planning will eventually embrace the growing need for vocational-technical education in many occupational fields, including agriculture, distribution, home economics. and others not now provided for in the National Defense Education Act, vocational education leaders are citing such trends of significance for developing vocational-technical education on an area

basis as these:

- 1. A trend toward more vocational education for groups beyond high school age in various fields.
- 2. A greater expansion of enrollments and services for adults in evening and extension classes
- 3. Increased area programs in certain phases of vocational business education to improve instruction in such subjects as office practice, machine operation, and secretarial work.
- 4. Expansion of vocational guidance and counseling services due to the need for more careful student selection.
- 5. Extension of training programs to meet regional and national as well as local employment needs.

Legal Restrictions

While on the one hand the stress on area vocational education programs in Title VIII is encouraging consideration of the application of this concept to broader fields, on the other hand the restrictive language of the law limiting the use of federal funds to training of "highly skilled technicians . . . in occu-

pations . . . necessary for the national defense" is causing criticism.

As interpreted by the Department of Health, Education, and Welfare Section 303 (a) (3) of Public Law 85-864 defines the basic intent of Title VIII and takes precedence over all else in this Title.

This provision of Section 303 (known as the Bush Amendment) reads:

- s) Any amount paid to a State from its allottment under section 302 for any fiscal year shall be paid on condition:
- 3) that funds appropriated under Section 301 of this title shall be used exclusively for the training of individuals designed to fit them for useful employment as highly skilled technicians in recognized occupations requiring scientific knowledge, as determined by the State Board for such State, in fields necessary for the national defense

The Technician Controversy

When the Defense Education Act was put in operation, it seemed apparent to some that its definition of an area vocational education program (Section 307) as one "designed to fit individuals for useful employment as technicians or skilled workers in recognized occupations requiring scientific or technical knowledge" was in conflict with Section 303 cited above.

Since no common definition for the word "technician" appeared to exist among labor, industry, and management groups, there was a need for clarification. Mounting dissatisfaction over the scope of Title VIII resulted in the formation of a committee by a group of ten national organizations - representing both labor and management to work on regulations governing the area vocational education program and related matters.

Representatives were appointed by the following national associations:

Organized Labor: AFL-CIO Trades Department; United Association of Journeymen and Apprentices of Plumbing and Pipefitting Industry; International Brotherhood of Electrical Workers; International Association of Machinists; Brotherhood of Boiler Makers, Iron Ship Builders, Blacksmiths, Forgers and Helpers.

Management and Industry: National Association of Plumbing Contractors; Associated General Contractors of America, Inc.: National Electrical Contractors Association, Inc.; National Joint Apprenticeship and Training Committee for the Electrical Industry; Mechanical Contractors Association of America.

Upon their invitation they were joined by representatives of the American Vocational Association.

Their patient discussions over an eight-months period and in a number of joint meetings with top Office of Education officials have borne fruit in the revisions of the Regulations (Misc. 3560) and the suggestions for their implemen-

tation (Misc. 3561) recently issued by the U.S. Office of Education. The modified regulations will be printed in the Federal Register where publication will give them the effect of federal law.

Office of Education officials emphasize that these revisions are intended to help clarify the basic intent and limitations of Title VIII as defined in Section 303 (a) (3). They say the adopted changes make it clear that (1) journeymen are not excluded from the training programs operated under this Title but may receive supplemental instruction that will enable them to advance to highly skilled technical jobs, and (2) apprentices may be enrolled in related courses that are technical in nature.

Broadening the Law

Encouraged by their victory in this skirmish the cooperating group of labor, management, and vocational organizations is laying plans to seek a revision in the National Defense Education Act itself, when the climate is right, which would broaden the restrictive language in Title VIII to permit using area funds for comprehensive programs of vocational education.

Blockage of a proviso the Senate Appropriations Committee attached to the 1960 Health, Education, and Welfare Department's appropriations bill in order to nullify the restrictive language (Bush amendment) in Title VIII convinced the members of this cooperating group that to cope satisfactorily with the dilemma an amendment to the basic law is necessary.

After the proviso had been eliminated on the Senate Floor on a point of order (legislating in an appropriations bill) raised by Senator Prescott Bush (R., Conn.), the Senator whose amendment had resulted in the inclusion of the restrictive language in the first place, the co-operating committee decided to visit Senator Bush in person to find out why he offered his amendment in 1958 and raised the point of order in 1959.

In conversation with them the legislator disclosed that his restrictive amendment to Title VIII as well as his recent point of order were offered at the request of officials of the U.S. Office of Education.

Such maneuvering by federal officials,

in the opinion of the American Vocational Association's Executive Secretary and some other leading educators, is a clear violation of the National Defense Education Act itself which states (Section 102): "Nothing contained in this Act shall be construed to authorize any department, agency, officer, or employee of the United States to exercise any direction, supervision, or control over the curriculum, program of instruction,

administration, or personnel of any edu-

cational institution or school system."

the

AMERICAN SCHOOL BOARD JOURNAL

An Independent Periodical of School Administration

Guest Editorial -

RUSSIAN EDUCATION: PUZZLEMENT TO BOARD MEMBERS

ONE wonders what passes through the mind of a member of an American school board as he reads the various accounts, official and otherwise, of Russian Education. This is particularly so in considering the report of the "First Official U. S. Education Mission to the USSR." The ten members of this mission holding high educational positions, five of them in the U. S. Office of Education, visited ten cities in Russia on a 7000 mile itinerary during a single month.

Can Russia's Experience Help Us?

A school board member might reasonably expect some light on the presumptively evil effect on education itself - even though the same machinery of education is used: schools, teachers, pupils, textbooks, extracurricular activities - of a system that violates so many things that are regarded as essential to American education: local control; the danger of federal control and direction; popular control of education; local financial support; danger of educational bureaucracy; freedom of teaching; spontaneous free extracurricular activities; the importance of the self-education of the individual. Little help, if any will be found on these problems. And may we add, in view of the fact that human nature being what it is, we suspect that the conditions in Russia are not so similar and uniform as is implied in the report. However we deal with the report as it is:

Does the Aim of Education Affect the Process?

School board members have been told many times that the aim or purpose of education is an influential, even a determining factor, in the educational process. A bad aim or a misconceived aim ought to seriously affect the quality of the educative process. But the processes of Soviet Education seemingly show no bad effect, but on the contrary it is flourishing. And Com-

¹Eugene Lyons "One Trip to Russia Doesn't Make An Expert," Reader's Digest. Oct., 1959, pp. 213-220.

missioner Derthick in his Foreword said:

Teachers and school people have many common problems the world over. We felt quite at home discussing some of the problems educators face everywhere (p, x).

There is little doubt but that the Russian educational end, even as these members of the Commission describe it, does have an effect on Russian practice, and they say, it is clearly discernable. This end described in the first chapter is variously worded.

- 1. National advancement
- 2. World acceptance of Communist ideology
- 3. Race to world supremacy
- 4. Strengthen the Communist system
- 5. Highest good is to serve the State.

The reason the school board member learns nothing fundamental on this basic problem with which he is concerned, is that these reports are concerned with the externals of education—the machinery of education: enrollments, formal teacher training, length of period of education, pay of teachers, etc. Statistics, statistics and more statistics! The school board member recalls how often he has read in American education literature the dire effects of the principal characteristics of Russian education. And how often his superintendent has fed him the same "dope."

But what shall our school board member think when he reads in this report, that these wonderful results of Russian education are secured under these conditions stated in the report:

"From infancy, children are taught that the highest good is to serve the State: school children through the clubs or circles, in classes and in games are taught to identify all good things with the State, on class excursions and tours of museums, shrines, factories. They are taught the history of the revolution and to honor its heroes, underplaying the pre-revolutionary achievement and emphasizing Soviet progress" (p. 3). The individual is lost - does not count - in this deification of the State and its canonization of Lenin and others. Surely such an all pervasive purpose must have influence on the method, content and spirit of education, but it is not revealed in this

Multiple Politico-Governmental Control

And the administration of education assures this objective, because though seemingly decentralized by states or republics, "uniformity in educational policies and methods is nontheless real and is brought about by an invisible hand, and one becomes very much aware of that fact." This control is exercised by a politico-governmental trinity consisting of:

- 1. Federal governmental agencies (ministers and bureaus)
- 2. Federal organs of the Communist party
- Republic (State in U. S.) bodies of both government and parties.

"Big Brother" Ever Present

But there are no local board members in Russia to worry about that kind of control. Education is organized administratively from the top. In Moscow to take the illustration in the report, education is administered by a City Director of Education, who is appointed by the Moscow Soviet (City Council) of which the present director is a member." There are two lines of authority to the director — one from the Minister of Education, who gives him instruction, and one from the Moscow Soviet."

If what the school board member reads in the books on school administration and what school superintendents are telling him are the "eternal verities" of school policies in the American way of life, then the Russian form of organization should be destructive of any educational system. But the official delegation sidesteps neatly the issues about which we want light, not merely facts about Russian education, by deciding:

We have avoided comparisons between our educational system and that of the Soviet Union, because as we have stated, the objective in the two countries are so different as to make comparisons misleading (p. 114).

What would have been most helpful would have been not a comparison of the external factors of school organization and administration but an evaluation of the processes as a means of achieving the declared end, and then assuming there a philosophy of education, an evaluation in terms of the fundamental basic outlooks on man, society and God.

A Nation Passionately Dedicated in Education

And perhaps the most surprising conclusion of this official delegation is a judgment about the people of Russia, whom they met only in the smallest numbers and in an insignificant sampling of the whole nation. The opening sentence of the report is:

The one fact that most impressed us in the U.S.S.R. was the extent to which the Nation is committed to education as a means of national advancement.

In Communist totalitarian Russia this sentence may be chameleon by not identifying the "Nation." If it means the Politburo which is the realistic view the statement need not concern us for the politicians in Russia have used every means legal and illegal, moral and immoral, to maintain themselves in power, and it is customary to call the means "education." But as we read further this realistic view is not meant, but an even more striking one:

Everywhere we went in the U.S.S.R. we were struck by the zeal and enthusiasm which the people have for education. It is a kind of grand passion with there (p. 1).

(Concluded on page 44)

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RUSSIAN EDUCATION

(Concluded from page 42)

Most of the people in Russia, according to the delegation, see education as the "key to advancement." - it isn't clear whether it is in the society or in the Party but it is certainly for world communism and world domination. In a totalitarian, planned society it is truly a remarkable achievement to have a popular passion for education. In spite of the slight basis for such a judgment, it would be a matter of major importance if it were actually achieved in any one of the ten cities that were visited. In view of our own desire to achieve such a passion, the existence of it anywhere generally in a community in ancient Athens or modern Uzbek should have prompted the delegation to find out how such a condition could occur under the Russian conditions. Our Delegation had perceived in these amazing Russians they met even a greater quality than the passion for education, a sense of sacrifice for knowledge, and the self-conscious social purpose that it will all lead to world supremacy. The point is so significant we quote the report.

We are sure, says the American Delegation, that the Soviet people anticipated the day when their present sacrifice for knowledge will bring them many rewards, but right now as we see it, they regard good schools and universities as necessities in their race for world supremacy (p. 1).

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The School Board Member's Objective

Our school board member feels he himself is making a contribution to making a worthy spiritual human being, the agent of a humane civilization, that he is an instrument in the symphony of the total forces of the community, that he is a creative voice of the community, that he needs no direction from a remote capital nor from

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Perhaps the greatest puzzle for the member of a local school board is the "conclusion" of the report. The "sobering experience" of Russian education says the report "only served to renew our confidence in our better schools." "But, at the same time, what we saw increased our concern for our poorer schools suffering from neglect" (p. 116 and p. xi). The idea of comparison was renounced but here it is in a strange form indeed.

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But rather surprising are the kind of things that the "delegation" or mission questioned. Are these basic educational problems? No. Are these the basic issues which caused the Commissioner of Education and his associates to be concerned about those American schools suffering from neglect? We hope not! Are these polite trivia which were stated so as not to offend the host? In any case they should be a matter of record here, and here they are:

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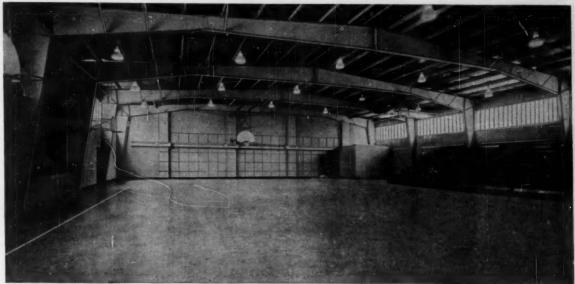
7. Has popular government any essential relation to "sound" education?

8. Has the individual any right to self-determination in his own education?

9. Is provision of educational opportunity even universal provision in a regimented society a condition favorable to the education of human beings or the instrumentality for making robots for the national goals at the time?

10. Are war, in Clausewitz's sense, and education (propaganda, regimentation, infiltration, public information over mass media), of your own and other peoples as in Russia today the instruments of the same national purposes forcing one's will on a weaker nation?

- EDWARD A. FITZPATRICK



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6. Does the Russian experience throw any new light on the problem of the fiscal and administrative independence of school boards? (Cf. Count's "School and Society in Chicago" during William McAndrew's administration.)

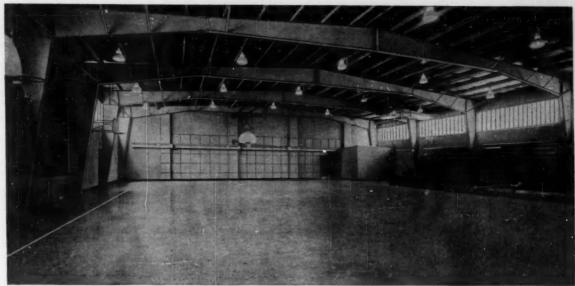
7. Has popular government any essential relation to "sound" education?

8. Has the individual any right to self-determination in his own education?

9. Is provision of educational opportunity even universal provision in a regimented society a condition favorable to the education of human beings or the instrumentality for making robots for the national goals at the time?

10. Are war, in Clausewitz's sense, and education (propaganda, regimentation, infiltration, public information over mass media), of your own and other peoples as in Russia today the instruments of the same national purposes forcing one's will on a weaker nation?

- EDWARD A. FITZPATRICK



Butler gymnasium for Whitmore Lake School, Whitmore Lake, Michigan.



Many schools which couldn't afford good gyms, now have them—thanks to Butler

As you know, gymnasiums need spacious interiors that are completely free from supporting posts and columns. As you may not know, the construction costs of these wide, clear spans are what usually make the purchase prices of good gyms so high.

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The handsome gymnasium above is typical. It was designed around Butler pre-engineered steel frames and a metal roof that can provide clear-span interiors up to 120-feet wide. The components are precision-made on a mass-production

basis in a wide range of sizes. They are so perfectly formed that assembly is little more than a bolting job. With the whole building load on the rigid frames, economical curtain walls are used. Result: remarkable savings in construction time, labor, material and engineering costs. And your gym is ready weeks to months sooner.

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ASSOCIATION NEWS

NATIONAL COUNCIL ON SCHOOLHOUSE CONSTRUCTION TO CHANGE NAME?

The ever changing problems of planning school buildings as functional tools for education was the theme of the 36th annual convention of the National Council on Schoolhouse Construction, in Kansas City, October 6 to 9 inclusive. The meeting was characterized by intense interest in a forthcoming Guide for planning functional plants for postsecondary educational institutions, and by a demand on the part of college

and university men for a change in the name of the Council. The college group believes that the old title is too narrow and no longer expresses the broadened consideration which is given by the organiza-tion to educational planning and construction of the entire range of educational institutions in the United States and Canada.

The Kansas City school authorities led by Asst. Supt. G. Dewey Smith, provided warm-hearted hospitality and gave the Council members opportunities for visiting widely different types of splendid elementary and secondary in Missouri and Kansas City metropolitan area in Missouri and Kansas. Attendance exceeded 130 active members. President George D. Engelhardt and Secretary W. D. McClurkin directed the business of the Council with the traditional smoothness.

Aspects of Functional Plans

In the opening address, Supt. Joseph A. Hazlett of Kansas City emphasized the need for placing attention on the values of education to be achieved in the school plant. The planning, he said, is a co-operative under-taking in which the school staff, custodians, school board, citizens, and the architect must join. New school buildings must be modifiable to meet dynamic changes in the school program and teaching method and the new em-phasis on new purposes and needs. The final judgment must be the responsibility of the

superintendent and the school board.

On Wednesday and Thursday mornings the Council divided into three groups for the study of functional planning of elementary, study of functional planning of elementary, secondary, and postsecondary school plants. There was some overlapping with topics discussed in past years, but it was interesting that almost all of the discussions were based on new aspects of planning developed from changing community situations, new educational programs, curricula, and classroom methods.

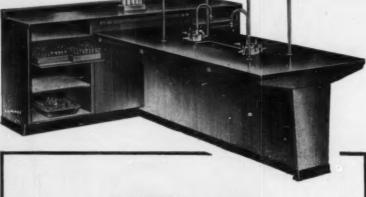
methods

The Committee on Research and Publications reported, through Chairman A. C. Tjomsland of Seattle, that the Council has four main projects under way: (1) The Com-mittee on Post High School Plant Planning has practically completed its work, and its report (discussed at the meeting) will be ready for distribution before the Toronto convention in 1960. (2) A handbook on liaison activities is nearly ready. (3) Procedures are being developed for keeping the membership current on educational plant research and for clearing requests for information and research.

(4) The Guide will be revised in time for the 1963 convention. (5) There is need for regional organizations of Council members for exchange of experiences. (6) The committee expressed the need for a house organ and for

a popular digest of the Guide.

The committee on postsecondary school planning presented a complete manuscript for the proposed Guide on planning in this field. The discussion brought out the desirability of condensing the first three chapters which now discuss the existing plant, the need for planning, and an overview of the planning process, into a single chapter which will provide an overview of the character, organization, and plant needs of post-high school institutions. There was agreement that Chapter IX, which recommends specific numbers, sizes, and other data for common facilities such as classrooms, laboratories, libraries, administrative spaces, sanitary services, etc., should be less specific and should suggest the need for studies of individual situations. The report will be re-written and, after acceptance by the executive committee, published in time for the 1960 convention



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Association Business

The officers elected for 1959-60 are: President — Lloyd L. Waite, Building Co-ordina-tor for Caddo Parish, Shreveport, La. Vice-President — Arnold C. Tiomsland, Director of School Plant Facilities, State Department of Educa-

School Plant Facilities, State Department of Educa-tion, Olympia, Wash.

Secretary-Treasurer — W. D. McClurkin, Director of Surveys, Peabody College, Nashville, Tenn. Executive Committee Member — Merle A. Stone-man, Professor of School Administration, University

man, Professor of School Administration, University of Nebraska, Lincoln, Neb.

Nine members elected to life membership: Fred Horne, Ray L. Hamon, N. E. Viles, W. W. Carpenter, Walter Cocking, John W. Lewis, W. W. Durham, Gordie Young, Paul L. Rivers.

The 1960 convention will be held in Tor-

onto, Canada.

A motion to change the name of the organization to the Council on Planning Education Facilities was tabled, and it was agreed that the proposal for a new name be studied during the year and discussed for action at the Toronto meeting.

SCHOOL BOARD JOURNAL for NOVEMBER, 1959

SEMIMICRO CHEMISTRY
LABORATORY EOLIRMENT

SCHOOL SCENE

(Concluded from page 8)

dents. Following the decision the high school dropped swimming.

- In Atlanta, Ga., the board of education has given notice that it will appeal federal court orders forbidding racial segregation in Atlanta schools.
- Delaware's public school system mixed whites and Negroes in first-grade classrooms this school year. All told, 18 Negro boys and girls, each just past six years old, walked into schools in six southern Delaware districts.
- ◆ A handful of Negroes entered the Dade county, Fla., white schools in September, which was the first step toward compliance with the Supreme Court decision.
- In Prince Edward county, Va., a makeshift school system was opened for white students only as a last resort against integration. At the same time, three all-white schools in southwest Virginia were told to admit Negroes for the first time on January 25.
- In New York City, more than 1100 white students boycotted four New York schools in protest against the transfer of Negro and Puerto Rican children into white schools.
- In St. Louis, Mo., the U. S. Court of Appeals recently upheld the validity of the Arkansas pupil placement laws. The three-judge court reversed a lower court order that three Negro children be admitted immediately to an all-white school in Dollorway School District. These Negro children and any others desiring to change schools, the court held, may make their applications under the state pupil placement laws. The Arkansas laws provide 15 standards to be considered in the case of each pupil seeking a transfer.

SURVEY SHOWS TEACHER SALARIES

A recent survey by the U. S. Office of Education shows that the average salary of beginning teachers in 1956-57 was \$3,439. The average salary of beginning teachers in 1956-57 was \$3,699 in large urban districts, \$3,552 in medium urban, \$3,441 in small urban, and \$3,001 in rural districts.

SAFETY IN SCHOOLS

A six-man panel on Fire Hazards to Human Safety in Schools has been organized as one of four groups comprising a school fire safety study and conference.

Organized by the Building Research Advisory Board of the National Academy of Sciences, under a \$40,000 grant from the Educational Facilities Laboratories, Inc., of the Ford Foundation, the program was set up following the diastrous Chicago fire of last December.

Each of the four panels is made up of fire safety experts, school administrators, and architects, who will study and publish facts and opinions relating to the question of fire safety in relation to school structure and educational needs of communities.

The first meeting of the group was held August 25, in Washington, D. C.

CONSTRUCTION EXPENDITURES WILL RISE IN 1960

U. S. construction expenditures will reach a record total of more than \$55 billion in 1960, according to thep rofessional building magazine, Architectural Forum.

The Forum estimates that school building in 1960 will increase about 3 per cent to more than \$3.2 billion. Public school construction suffered a relapse in 1959, and the outlook is for only a small recovery, about 4 per cent. Private school building will amount to \$550 million per year.

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How air conditioning can pay for itself in a new school building

- 1. An air conditioned building can cost less to build
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- 3. Teaching efficiency increases

RECENT STUDIES concerning new school buildings bring significant facts to light.

You can build a modern, fully air-condi-

tioned school building for less money than it costs to build a conventional building, because it can be more compact. If the building is designed for air conditioning the savings can more than pay the cost of the air conditioning equipment.

Moreover, the operation of the air conditioning pays for itself—due to greatly reduced cleaning, painting and decorating bills.

Most important, there is an increase in faculty and student efficiency. This means better teaching, better learning. Studies show that because of body heat and the sun's rays it takes outside air of less than 60 degrees to cool a school building without air conditioning.

When outside air is above 60 degrees, classrooms are sure to be uncomfortable. Above are some U.S. Government figures, showing the percentage of school-year classroom hours,

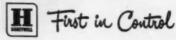
CITY	% classroom time, during the regular school year, that outdoor temperature is above 60 degrees				
LOS ANGELES	86%				
DALLAS	62%				
WASHINGTON, D. C	44%				
ST. LOUIS	43%				
CLEVELAND	34%				
CHICAGO	32%				
MINNEAPOLIS	25%				

in various cities, when the temperature is above sixty degrees.

These are the times when air conditioning is vital, if adequate efficiency in teaching and learning is to be maintained. Of course, these figures do not include the important summertime. With an air conditioned school, summer study is more popular. The school can be used in the hottest weather, day and night. It can also be utilized for recreational activities that would be impossible without air conditioning.

The other benefits of air conditioning—in terms of increased comfort and cleanliness—are immeasurable. Today, more than ever before, it is important to examine the economies of air conditioning before you build. Consult your architect, consulting engineer or air conditioning contractor. Or write: Minneapolis-Honeywell, Department AJ-11-84, Minneapolis 8, Minnesota.

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Classroom comfort means better learning, better teaching. This is the attractive Honeywell Pneumatic Round Thermostat. It is used for both heating and air conditioning, and is the most accurate pneumatic thermostat available. With one in every classroom or recreation area, the teacher can adjust the temperature to fit the specific activity. Remember, only a thermostat on the wall can sense the temperature the way an occupant does.

NEW BOOKS

What Price Double Sessions?

Paper, 15 pp., 25 cents. National School Boards Association, 1940 Sheridan Road, Evanston, Ill.

This pamphlet provides a factual account of what happened when Arlington High School, Arlington Heights, Ill., found double sessions unavoidable while awaiting completion of additional school facilities

Administrative Theory

By Daniel E. Griffiths. Paper, 123 pp., \$1.25. Appleton-Century-Crofts, Inc., New York 1, N. Y.

Upon the assumption that there has been little or no theory in educational administra-

tion, this book outlines the author's ideas of tion, this book outlines the author's ideas of the nature of a scientific theory of administra-tion generally and of educational administra-tion in particular. The book devotes consider-able space to what is not good theory of administration. The definitions and discussions of the theory on the positive side are not always defensible. The later chapters on deci-sion making are definitely practical and helpful. The school executive at any level will be helped in his thinking and his relations with board members and teachers by the outlined board members and teachers by the outlined processes and suggested attitudes for decision

Legal and Ethical Responsibilities of School Personnel

By Warren E. Gauerke. Cloth, 302 pp., \$4.95. Prentice-Hall, Cliffton, N. J. This book takes up in sequence the legal and ethical principles of the actions and rela-

tions of teachers, nonteaching staff members, supervisors, superintendents of schools, and of school boards. The explanations and recommendations of the legal aspects of the teacher's work and relations are clear-cut and compre-hensive. The author's discussion of the ethical aspects of the teacher's responsibilities toward and authority over pupils are not always defensible because of the almost inevitable confusion of basic moral law with modern sociological theory.

Purchase Guide for Programs in Science, Mathematics, and Foreign Languages

Prepared by Chief of State School Officers. Paper, 336 pp., \$3.95. Ginn & Co., Boston 17,

This guide was prepared to advance the content and quality of instruction in the three subjects—science, mathematics, foreign languages, in elementary and secondary schools; to encourage purchase and use of modern scientific and other teaching aids; to ofier school authorities information to enable them to obtain better values for school funds exschool authorities information to enable them to obtain better values for school funds expended; to assist manufacturers in making products of higher quality and greater educational usefulness at lower costs; to discourage sales of shoddy, uneconomical or inappropriate apparatus and materials; and to contribute to rapidly improving methods of teaching in the county. Specifications and advice on the purchase and use of selected items of equipment are provided, as well as discussions. of equipment are provided, as well as discus-sions of special problems in the use of equip-ment. The Guide will help all schools that are moving forward with courses required by the National Defense Education Law

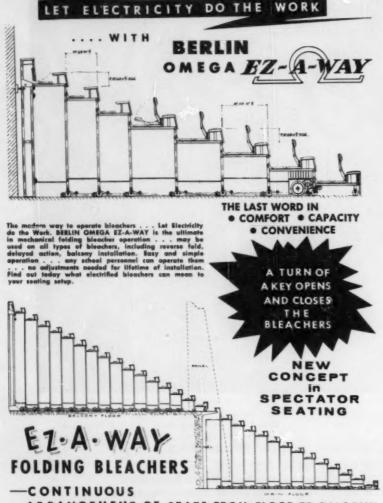
How to Estimate the Cost of Your **Proposed School**

By Connecticut Public Expenditure Council,

Inc., 21 Lewis Street, Hartford 3, Conn.
This guide outlines a specific plan for the educational and architectural planning of school buildings and is addressed to boards of education and other interested persons. A valuable supplement is the work sheet for determining areas and approximate cost ranges. The booklet is based on local and state experience.

Disaster Protection Handbook for **School Administrators**

Prepared by William M. Lamers. Paper, 39 pp. The American Association of School Administrators, Washington 6, D. C.
A valuable handbook on civil defense and disaster protection. It suggests procedures which school administrations should take. There is a list of publications applicable to the subject. the subject.





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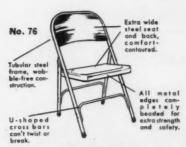


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to schools graduating under 150

Now it is possible to extend to high schools graduating less than 150 students the same high level of driver education afforded larger schools equipped with the Aetna Drivotrainer classroom system—and at the same savings in teachers, time, and teachers' time!

Drivotrainer, the precision electro-mechanical training device that permits students to "drive" through all kinds of situations before actually going on the road, has been adapted to a "classroom on wheels"—a bus fully equipped with a six place training unit. By scheduling instruction at proper intervals, two, three or even more schools in a district can utilize the mobile Drivotrainer

Components of the Drivotrainer are the cars, training films, recorder and projector. Six stationary cars are equipped with all essential instruments and controls, simulate motor noise, clutch "friction point" and brake pedal "feel." Recorder imprints individual student reactions on master sheet through electrical connections between cars and recorder. Development of manipulative skills, habits and acquaintance with basic traffic patterns is provided in an atmosphere conducive to learning—and at no risk to life or property.

Real test of driving ability is the individual's response to emergency situations. Reaction must be instantaneous and correct! Conditioning the proper reflex action is done through the use of a series of specially prepared training films. The Drivotrainer equipment is set to permit the instructor to stop the film at any point for discussion and review, and repeat emergency situations until satisfactory level of performance is achieved. bus. In this way, these important advantages accrue to each school:

Teachers can train more students. Drivotrainer multiplies the number of students that can be taught, without increasing the teaching staff. Hours needed for dual-control on-the-road instruction can be cut in half.

Students are more proficient. Drivotrainer drills them in emergencies to properly condition their reaction; under dual control, emergency training cannot be included because of the hazards involved.

Better educational value because Drivotrainer exposes students to a full range of learning situations, quickly teaching driving skills, good judgment and developing safer driving attitudes.

All of these combined can only result in LOWERING THE COST OF PER-PUPIL INSTRUCTION WITH-OUT INCREASING THE TEACHING LOAD!

Rockwell extends service to schools by manufacturing and distributing the Drivotrainer system which was developed as a public service by the Aetna Casualty and Surety Company. Working closely with a panel of nationally known educators, Aetna invested considerable time, effort and funds in perfecting the Drivotrainer system. With its effectiveness fully documented by responsible educators, the Drivotrainer is in use in schools, as well as in re-training programs being conducted by the U.S. Post Office and the U.S. Air Force.

Rockwell will continue to provide the same quality of product and of service which have won for Delta Power Tools a place in 72% of U.S. school shops, and that have made Rockwell measurement and control instruments the standards of quality in their fields. For further information, write: Rockwell Manufacturing Company, AVM Division, Dept 401L, Pittsburgh 8, Pa.

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PERSONAL NEWS

ARKANSAS

R. J. Hughes has been elected superintendent of schools at Glenwood to succeed J. G. Coker.

Mrs. Eloine W. Brandstod has been elected president of the Stockton board.

Melvin Peterson has been elected assistant superintendent in charge of elementary schools in San Francisco.

Paul E. Johnson, assistant superintendent of schools at Indianapolis, has resigned from the

George F. Ostheimer is the new superintendent of schools in Indianapolis, where he succeeds Herman L. Shibler.

Arthur D. Templeten, of Montgomery County, has accepted a position as assistant superintendent in charge of building activities at Des Moines, Iowa.

Miss Jessie M. Perker, former State Super-intendent of Public Instruction in Iowa until her retirement in 1954, died at Lake Mills, May 2. Miss Parker had been elected State Superintendent in 1938.

LOUISIANA

Clyde R. Wilson terminated his position as



member of the Bridgeport Exempted Village board of education on August 15, when he moved to Lafayette, Louisiana. Mr. Wilson had served 28 years as a member of the Bridgeport board, 13 years of which he was chairman.

MARYLAND

Dr. Goorge B. Bain will become superintend-ent of schools of Baltimore on January 1, 1960.

MASSACHUSETTS

Dr. John H. Lawson has accepted the super-intendency of the Hamilton-Wenham regional high school in Hamilton.

Dr. Lawrence J. Fitzpatrick has succeeded John J. Mitchell as superintendent at Clinton.

MISSOURI

Elmer V. Thomas has been elected superintendent at Collins.

Colburn Brooks has been elected superintendent of the newly combined Roosevelt grade school and Lincoln County High School in

PENNSYLVANIA

Dr. B. Anton Hess has been elected superintendent of the Central Bucks joint school district in Doylestown.

WASHINGTON, D. C.

Dr. Kenneth Mildenberger has been appointed head of the language development program under the National Defense Education Act. He succeeds Dr. William R. Parker, who has returned to his position in Irdiana University.

Richard Koepke, Jr., is the new administra-tive head of the Arrowhead School District in Hartland.

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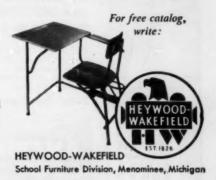
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HeyWoodite Won't Burn-Won't Stain-Won't Break

This dramatic demonstration proves that HeyWoodite is fireproof. In a recent school fire where the building was gutted, the only thing which could be salvaged was the HeyWoodite furniture. The desks and chairs required only washing before they were again ready for use.

Because HeyWoodite is virtually indestructible, it saves your school system substantial sums in maintenance year after year. Available in chair seats and backs, desk tops and tablet arms, HeyWoodite solid plastic with TrimLine lifetime chrome frames is your soundest investment for long run economy.



Entirely Eliminates Refinishing Costs

SCHOOL CONSTRUCTION

(Concluded from page 36)

selection of a basic design for standard drawings that is fundamentally economical and which is in common use in the community. Such a committee will be extremely helpful in the development of standard drawings and specifications. The design selected should produce a good structure that is free of unnecessary architectural embellishments and frills.

c) Considerable care should be exercised in writing construction and material specifications. The construction requirements should not only be complete, clear and concise, but also should be in accordance with standard practices in the community.

d) In addition to using available technical advice, practical people such as construction superintendents should be given an opportunity to make recommendations during the development of the standard drawings and specifications. Regardless of the skill of an individual architect or a group of architects, people who actually produce the finished building from the drawings and specifications can make substantial contributions to gain the objective of economy.

e) A program should be developed to get reports on construction problems and apparent economies during the course of construction of every project. These reports should be carefully studied and wherever a problem can be solved or an economy realized, the standard drawings and specifications should be revised accordingly.

f) If one is disturbed by the prospect of having all school buildings look alike as a result of the use of standard drawings and specifications, it should be realized that different site conditions, landscaping treatment, and the use of color will minimize, if not all together eliminate school plants, built from the same basic drawings, looking alike. Since most school plants are the result of an original and several additions, the use of standard drawings has a tendency to harmonize the several projects into an attractive, completed plant.

g) A fundamental result of standard drawings and specifications is strong competition. Contractors find it easy and economical to bid when drawings and specifications are complete and concise. As bids are prepared on subsequent projects the bidder can be more sure of the correctness of his bid. If he has been a successful bidder, he knows what his costs were, and are likely to be on subsequent projects. If bids are scheduled during a season of the year when contractors are "looking for business" the bid price will be lower than if bids are taken at a time when contractors are unusually busy.

4. Reasonable Operation and Maintenance Expense

a) When drawings and specifications are prepared, altogether too little attention is given to the problems that may arise in connection with the operation and maintenance of the project. The amount of extra and unnecessary expense because of such problems over the life of the building should be fairly and carefully considered during the drawing and specification stage when something can be done about it.

b) A school district should keep operation and maintenance costs in such detail as will emphasize the excessive or unnecessary costs of any building material or element. As an illustration: Windows may be wood, steel, or aluminum. While the original cost difference may be very negligible, the cost of painting and otherwise maintaining the windows may be very large.

c) Whenever the maintenance or operation crews find a condition or problem that could have been solved in the original construction, a report should be made so that consideration can be given to making proper revisions of the standard drawings and specifications.

d) Fewer kinds of materials and equipment to be operated and maintained is a natural result of the use of standard drawings and specifications.







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- A plan, for appropriate treatment of each area, i.e., strip-in of traffic lanes rather than entire floor re-treatment.
- A schedule, to put each operation in the right sequence, with tools and materials ready when needed.
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The worst weather and greatest punishment lie just ahead, for foyers, lobbies, corridors



Showers, locker rooms and toilets need not get dingy and neglected-looking



Cafeteria areas need special treatment. Ask about one-step cleaning and sani-

CALL HIM NOW (and ask him how to pre-condition your gym floor just before dances) The Hillyard Maintaineer is your consultant on floor care.

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HILLYARD St. Joseph, Mo. Dept. E-1

Please have the Maintaineer in my area get in touch with me. No charge, no obligation for his help!

Name...

Institution.

Address

City...

State..

NEWS of PRODUCTS for the Schools

NEW SCHOOL IN 4 MONTHS

In only four months, the American Bridge Division of United States Steel, Pittsburgh 30, Pa., erected a complete 8-room school for 250 pupils at West Pittsburgh, Pa. The one-story, L-shaped structure has 8 classrooms, a special education room, multi-purpose auditorium-



Modular Steel Structure

gymnasium, kitchen and combination office and health center. Containing 12,902 sq. ft., the school is 196 ft. long by 60½ ft. deep at one end and 72½ ft. at the other end. Ambridge Modular steel construction and standard products were used throughout the building, including porcelain enamel steel curtain walls in two shades of blue, sliding sash windows, modular interior partitions of baked enamel steel panels. If space requirements change, the reuseable steel panels can be shifted quickly and the modular design can be easily expanded.

(For Further Details Circle Index Code 0186)

CELESTIAL GLOBE

Teachers of astronomy and navigation will be interested in the new 14-in. transparent celestial globe offered by Lafayette Radio Corp., Jamaica 33, N. Y. Consisting of a colored terrestial globe within a transparent celestial globe, it offers an easily used and easily understood working model of the universe. This aid is helpful in visualizing and identifying the stars and constellations and



their relationship to each other, to terrestial positions and to times and dates. Motions of the stars and planets can readily be seen. Sun and moon are positioned by external controls, while artificial satellites can be made to travel around the earth automatically. The globe is reasonably priced.

(For Further Details Circle Index Code 0187)

EASY ROAD REPAIRS

The Monroe Co., Inc., Cleveland 6, Ohio, offers a new material, Zor-X, for repairing asphalt and blacktop pavements. Here is an easy, low-cost way to repair ruts, cracks, and chuck-holes in driveways, playgrounds and parking lots. Just pour the material into the hole and tamp it in place. One can drive over it immediately. The manufacturer claims that repairs can be made in almost any weather, when pavement is wet or dry, and when temperature is as low as 15 degrees above zero.

(For Further Details Circle Index Code 0188)

NEW STACKING DESK

A multi-use stacking desk, available in five heights and featuring an extra-large work surface, is now being manufactured by the Brunswick-Balke-Collender Co., Chicago 5, Ill. The large 20 by 24-in. top, unbroken by



Large Writing Area

pencil trough, offers a convenient and comfortable writing area. A part of the firm's new Contemporary Series equipment line, the movable stacking desk also features a roomy book shelf, Scandinavian modern styling, stacking and grouping, and an exclusive parchment-pattern melamine plastic top.

(For Further Details Circle Index Code 0189)

WATER BASKETBALL STANDARD

A portable aluminum water basketball standard is offered by the Jayfro Athletic Supply Co., New London, Conn. Designed to improve swimming and water sports programs, this piece of equipment may be used at indoor or outdoor pools or waterfront areas. Made of heavy-duty aluminum with rubber mounts, it is adjustable to various water heights. A waterproof backboard of double laminated masonite is sealed with two coats of nonglare white paint. Unit comes complete with official basketball goal and heavy-duty nylon net. It features a counterbalancing, rear extension weight that assures safety and makes permanent installation unnecessary.

(For Further Details Circle index Code 0190)

EASILY INSTALLED BOILERS

A new line of Kewanee Square Heat packaged boilers which feature forced-draft firing is now available from American-Standard Industrial Division, Detroit 32, Mich. The



A Lift Truck Moves It

forced draft-burner fires natural, mixed or L.P. gas, or No. 1 or No. 2 fuel oil; or combination gas/oil. The burner and all controls are installed and wired at the factory. A completely assembled unit, the Kewanee Type RF boiler needs only service connections to complete the installation; no stack is required. Installation can be completed in a few hours. Send for full information.

(For Further Details Circle Index Code 0191)

MOWER OR SNOW PLOW

The Porter-Cable Machine Company, Syracuse, N. Y., offers battery starters for its riding mower, the Yard Master. Available for the first time in the reel-type mower (Mark 30), or the rotary model (Mark 26), the



Rechargeable Battery

Yard Master is a year-around versatile power unit. It can be equipped for grading, seeding, rolling; to mulch, and sweep up leaves and twigs, to haul heavy loads, and to plow snow. Ease of handling is assured in the Speedmatic transmission designed for five forward speeds, neutral and reverse. The 12-volt battery is constantly recharged while the Yard Master is in operation.

(For Further Details Circle Index Code 0192)

(Concluded on page 60)

CORRESPONDING CODE INDEX NUMBERS TO BE ENCIRCLED CAN BE FOUND ON THE CARDS IN THE READER'S SERVICE SECTION



C. HOWARD HUNT PEN CO., CAMDEN 1, NEW JERSEY

"... A guide of great value ... validates the authors' theory that creative, intelligently conceived democratic school-community interaction on the local level is possible and results in genuine improvement."

SCHOOL COMMUNITY IMPROVEMENT

A Report of the Greenbrier County Program

By Wilson, Montgomery, Purdy, and Harrah

WORLD BOOK COMPANY

Yonkers-on-Hudson, New York

More Bounce Per Ounce Off Maple Floor-



San Jose, Calif. — Installer, Best Floor Co. — Architect, Edward W. Kress

"LESS DENTS" MAKE SENSE FOR YOU, TOO!

Livelier, easier-on-the-feet, the floor of this new high school gym in California is the same as in the Big Ten's latest "gem" (Columbus, Ohio) — just smaller.

Made by J. W. Wells and DIAMOND HARD Northern Maple, it's a floor which can also take roller skating, dancing, other community uses that help "sell" the gym — or (if necessary) pay for it.

Write for "Money-Making Gyms"

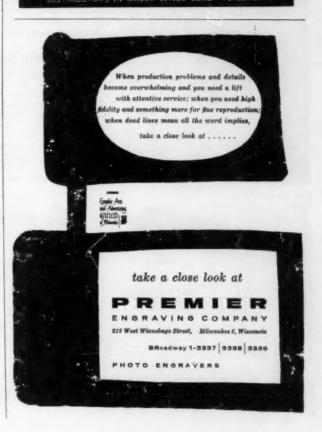


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DISTRIBUTORS IN MAJOR CITIES COAST-TO-COAST



News of Products . . .

(Concluded from page 58)

LUMINOUS CEILING

This Gratelite Louver Diffuser electric ceiling produces a functionally correct lighting system for the Midland (Tex.) public library. Over 50 footcandles of low brightness illumination are diffused through the open 36 in. cubicle Gratelites, manufactured by the Edwin Guth Co., St. Louis 3, Mo. The open, plastic fixtures reduce maintenance, hide strip units mounted above, and give the 40 by 60 ft. ceiling an over-all luminous appearance.





Nonglare Illumination

Since the fixtures act as secondary air diffusers, normally air conditioning outlets are mounted above the panels, but in this case, air diffusers were integrated into the ceiling as part of the architectural pattern.

(For Further Details Circle Index Code 0193)

STEAM AND HOT WATER HEAT

Lennox Industries, Inc., Des Moines, Iowa, announces a new development in its line of classroom heating equipment. Air processing units with steam or hot water coils permit the use of the Comfort Curtain system with a central steam or hot water heat source. Available in three colors with matching vinyl tops, unit DVS2-1200 is for use with steam while model DVW2-1200 is for hot water. These Comfort Curtain hot water and steam units are built of strong 16-gauge steel and completely wired and assembled at the factory for quick, easy installation on the job.

(For Further Details Circle Index Code 0194)

POSTURE TYPING CHAIR

A typist's posture chair, No. 47, is the newest addition to the line of school furniture made by Desks of America, Inc., Bridgeport 6, Conn. This three-way adjustable chair is engineered for individual fit, comfort and correct typing posture. Contour-shaped seats and backs of sturdy plastic are offered in a choice of decorator colors - coral, green, yellow or gray. These exceptionally sturdy chairs are low in cost and require little maintenance.

(For Further Details Circle Index Code 0195)

CATALOGS AND BOOKLETS

Packaged boilers through 600 horsepower for heating and processing, steam or hot water are discussed in a colorful 12-page brochure from Cleaver-Brooks Co., Milwaukee 12, Wis. Construction features to final test and start-up service are covered.

(For Further Details Circle Index Code 0196)

"Electronic Aids to Education" is a new 8-page catalog from the Educational Services Division of Rudio Corp. of America, Camden 2, N. J. Electronic aids for all levels of education are included: projectors, phonographs, radios, school sound systems, electron microscopes, etv and language laboratory systems.

(For Further Details Circle Index Code 0197)

"What Price Do We Pay for Imports?" is an open letter to school administrators on the subject of importing educational equipment from foreign countries. A copy of reprint No. L-298 will be sent without charge by Bousch & Lomb Optical Co., Rochester 2, N. Y.

(For Further Details Circle Index Code 0198)

New movable interior partitions are illustrated in a 24-page catalog from Penn Metal Ce., Inc., Boston, Mass. Various materials are available for the panels: steel with baked enamel finishes, hardwood panels, unpainted plywood, and gypsum wallboard. Details are also given on doors, glass and hardware needed.

(For Further Details Circle Index Code 0199)

"Bradley Group Showers," a new bulletin on multi-person, partitioned shower baths, gives installation and floorplan suggestions. Also included is the firm's new wall-mounted, two- and three-person shower stall. Send for a copy from Bradley Washfountain Co., Milwaukee 1, Wis.

(For Further Details Circle Index Code 0200)

Specification sheets on every major type of resilient flooring are available from the Armstrong Cork Co., Lancaster, Pa. Printed in multiple copies on perforated sheets, the specifications can be ripped from the folder and handed to a typist for copying.

(For Further Details Circle Index Code 0201)

A 27-page Building Maintenance Manual is available from S. C. Johnson & Son, Inc., Racine, Wis., to solve the daily problems of custodians. It included charts and procedural steps for cleaning and finishing floors, care of maintenance equipment, general cleaning, safety suggestions, and tips on removing stains from floor and carpet.

(For Further Details Circle Index Code 0203)

Rudd hot water heaters of lightweight aluminum that transfer heat quickly and resist corrosion are available in industrial and commercial units. A brochure includes case histories of a school and hospital, as well as tables on the hot water needs from laundries to swimming pools. Send for a copy from Aluminum Co. of America, Pittsburgh 19, Pa.

(For Further Details Circle Index Code 0202)

CORRESPONDING CODE INDEX NUMBERS TO BE ENCIRCLED CAN BE FOUND ON THE CARDS IN THE READER'S SERVICE SECTION



Ask for our beautiful new catalog with color pictures of Folding Tables, Folding Chairs, Table and Chair Trucks, Portable Partitions, Bulletin Boards, Folding Risers and Platforms. Send to THE MONROE COMPANY 6 Church St. COLFAX, IOWA

N-70



They chose Stromberg's new Electronic Time and Program System

FEATURES OF STROMBERG SYSTEMS INCLUDE:

- Jeweled Master Clock movement with automatically wound 72-hour spring power reserve.
- Secondary Clocks standard with hourly and 12-hour supervision—correction cycles completed in only 60 seconds.
- Program Unit, capable of 1440 signals daily on each circuit, immediately resets following power interruption.
- Central operations panel for control of utilities.
- Seven-channel transmitter—one for clock supervision, six for program signals.
- Installation and maintenance service available throughout U.S.A. and Canada.

A product of the laboratories of one of the largest clock manufacturers in the world—YOUR GUARANTEE of performance, quality and dependability.



33



The grandstand that grows

AmBridge Standard Steel Grandstands can be easily and quickly expanded to meet future seating needs.

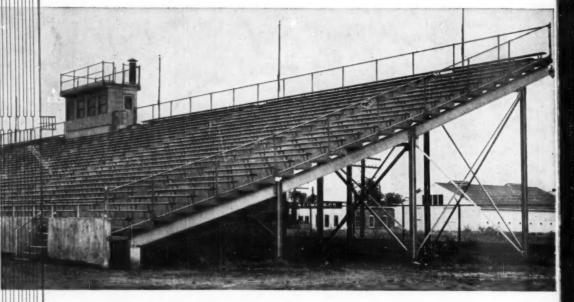
USS AmBridge Standard Steel Grandstands are engineered to grow with your school. By adding 18' sections to any standard AmBridge grandstand unit, you can increase its capacity to any desired size. And you can do it quickly and economically, still retaining the uniform appearance of a planned installation.

AmBridge Standard Steel Grandstands meet the most rigid design requirements. They can be adapted to ground contour without extensive grading. Watertight steel plate decking forms a perfect roof for lockers, showers, classrooms, office space, concession booths, or storage facilities beneath the grandstand. These modern steel grandstands can be moved if desirable.

AmBridge Standard Steel Grandstands and Stadiums are scientifically designed for maximum comfort and convenience. We will be glad to furnish estimates for definite projects. No obligation.

Ask for free booklet. Our 24-page illustrated booklet can be helpful in planning a new grandstand or stadium, or an addition to existing facilities. Just write to our Pittsburgh office.

USS is a registered trademark





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